Infantry

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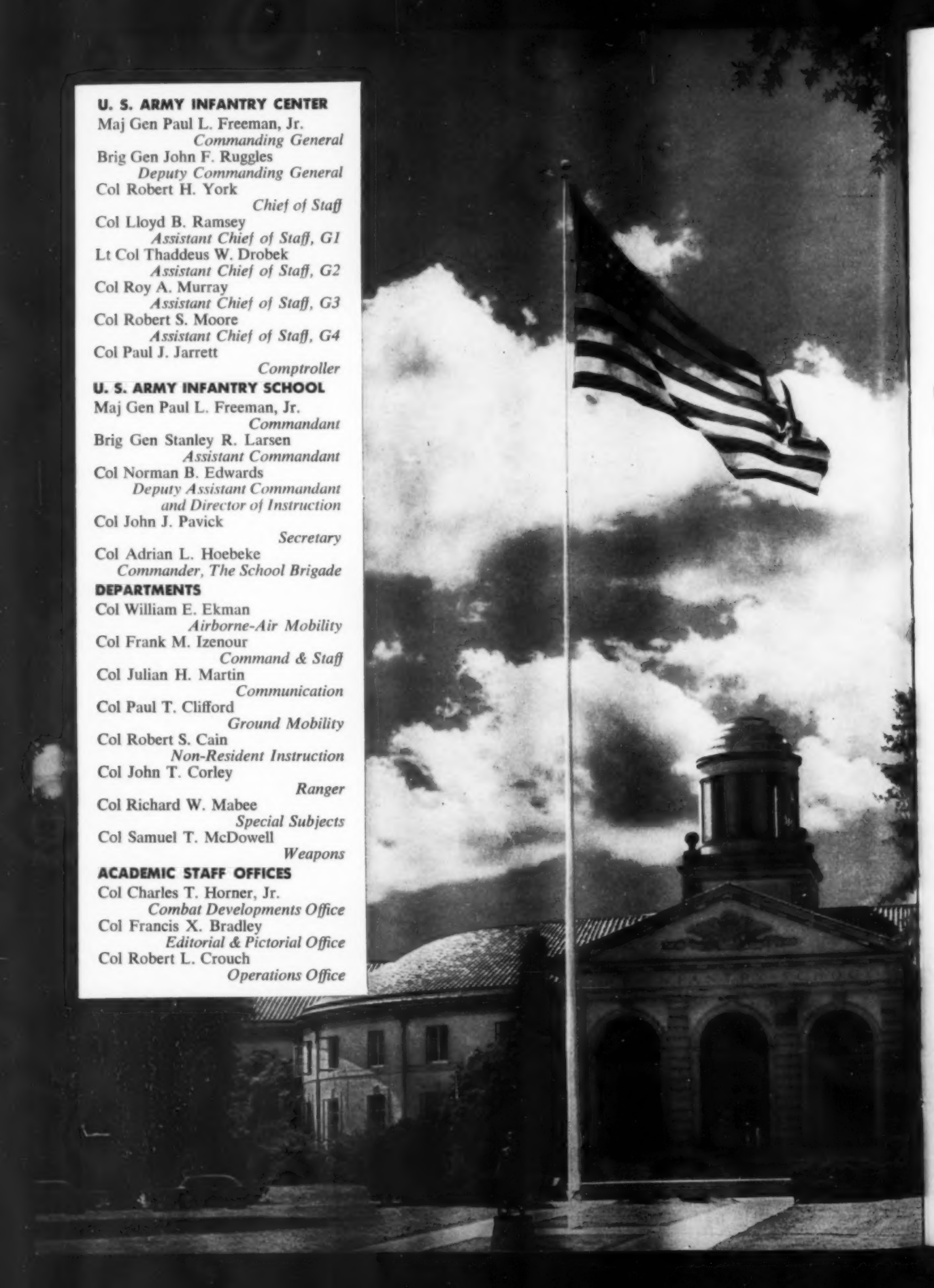
e Professional Journal for Infantrymen

Apr-Jun 1959



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THE COVER

This is the second in a series of covers designed to demonstrate the versatility and mobility of the Infantry. The Infantryman can move to any point that a land, water or air vehicle or parachute can reach. From there he can move on foot. Photo by Sgt Louis Castagnaro with cooperation of 1st Battle Group, 29th Infantry and 4th Transportation Company. Note: Back cover is designed for matting and framing.

Infantry

The Professional Journal for Infantrymen

OFFICIAL PUBLICATION

UNITED STATES ARMY INFANTRY SCHOOL

Vol. 49 Second Quarter Apr-Jun 1959 No. 2

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Dear Infantryman:

HAVING proudly worn the crossed rifles myself — both as an enlisted man and as an officer of the 42nd "Rainbow" Division throughout all its World War I engagements — I have a particularly warm spot in my heart for you, the American Infantryman. Fighting shoulder-to-shoulder with the artilleryman, the tanker, and the soldiers of the other ground arms and services, you have borne the brunt of the battle throughout the history of this Nation. You have met the enemy head-on, and defeated him in close, personal combat. You epitomize the fundamental element of warfare — man, the "ultimate weapon."

No one knows better than you that the role of the Infantryman has through the years become infinitely more complex. In this nuclear age you must be prepared to face powerful weapons new to warfare, and to cope with a tactical environment unknown in the past. But throughout history, you have consistently pitted your ingenuity and your valor against new weapons and new situations, and won your way to victory. To assist you in carrying out your basic and time-honored mission of closing with the enemy and destroying him on the field of battle, you have the finest equipment and most potent armament American science and technology can provide. These you must learn to exploit with maximum effect, but nothing can overshadow the importance of you, yourself.

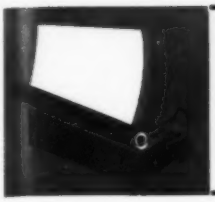
No mechanical device could ever take the place of your ingenuity, your capacity to reason, your courage and determination in the face of the harsh realities of combat. The tools of war which have been placed in your hands are your servants; they lengthen your reach, give wings to your boots, and increase the strength of your arms, but without you as their master, they are less than nothing.

I have abiding faith in you. That faith will go with you wherever you may serve, wherever you and the other members of the Army team may be called upon to uphold and defend the majestic ideals upon which this Nation was founded. In a very real sense, the future of America is in your worthy hands. Guard it well.

Wilber M. Brucker.

WILBER M. BRUCKER
Secretary of the Army

FROM THE SECRETARY



THE EDITOR SAYS

DEAR READER:

With this issue of *Infantry* we complete a full year with the enlarged format. It might be well to pause at this point to take stock and set our sights for the future.

While *Infantry* must be financed entirely by revenue from subscriptions, the change to the more expensive format was accomplished at no additional cost to the reader. This was made possible by a steady increase in the number of subscribers—circulation during the past quarter reached an all-time high.

Except for several individuals who have expressed a preference for the smaller magazine, most *Infantry* readers have been enthusiastic about the new look and the added features.

Infantry will continue to be a vital source of information for Infantrymen and members of other branches who work with the Infantry. It will cover every new development in Infantry organization, weapons and equipment, and tactics — well in advance of field manuals and other texts which take longer to produce. It will continue to present trends and career information.

Now, we set a new goal for the future. We aim to make your professional journal the foremost military publication of its kind in the world. We are determined that this official voice of the Infantry will contain the most authoritative information and thinking, from the highest to the lowest levels, on Infantry requirements and on the Infantry's role as a vital member of the Army team. It is our intention that *Infantry* be a publication with the highest professional and ethical standards and that it form a common bond among all Infantrymen of our Army and of our allies in the interest of Free-World security.

EDITOR.

LETTERS TO THE EDITOR

Patting and Padding

Sir:

. . . It may be presumptuous for me to say so but it seems that far too much space is taken up with "patting yourself on the back" in the "Letters" column. All but one of the letters in the last issue were of this nature. Correspondence should be directed more to interesting and constructive criticism.

Infantry is well produced but articles often seem long-winded. A certain amount of "padding" seems to be included. Photographs and diagrams are excellent.

A longer editorial on anything new which has happened in the Infantry world since the last issue might be interesting, as would new appointments of officers of higher rank.

W. A. ROBINSON, Maj
King's Own Royal Regiment
British Forces Post Office 10

Major Robinson's comments are appreciated. Actually, we do publish all of the criticism we receive. But we get too little of this kind of comment. We could do a better job if more readers told us what they want and offered constructive suggestions for improving INFANTRY.

Excerpts from favorable letters are published for a purpose, but not "to pat ourselves on the back." Since INFANTRY *subsists entirely on subscriptions and has no funds for advertising, we use this means of showing how* INFANTRY *has been helpful to a wide variety of readers—Active Army Infantrymen, National Guardsmen and Reservists, members of other branches and services, allied officers and even retired officers and civilians. We do this in the hope that such comments may strike a responsive chord with the chance reader of* INFANTRY *and make him a regular subscriber.—Editor.*

Smaller Size Better

Sir:

I was very sorry to see the size of *Infantry* change. The smaller size was easier to carry and refer to.

In Korea, as a member of KMAG, I carried the new issue, or a selected old one, with me in the field. At lunch and various other times (when I had a point I wanted to make) I would show it or lend it to Korean officers to read.

The smaller size was also better for filing. I have a file going back to the 1940s. . . . While some of the older issues are outdated, they still contain much of interest and value.

B. A. REYNOLDS
Lt Col, Infantry
U. S. Army Advisory Group
Baton Rouge, La.

Invaluable Source

Sir:

Congratulations on the January-March issue of *Infantry*. The scope and nature of its contents show a most remarkable awareness of the complex problems facing our combat ground forces today and in the future. I was particularly impressed by the coverage given to the discussions at the Infantry Conference.

As an Artilleryman brought up in the belief that the redleg existed only to support the doughboy in combat, I've always subscribed to Infantry School literature for professional improvement. Continued on page 72

A Regular Infantry Feature

YOUR INFANTRY CAREER

This regular feature, initiated in our last issue, provides important information on policies and personnel actions which affect your Infantry career. Material for Regular Army and active duty Reserve officers is furnished by Infantry Branch of the Officers Assignment Division. Similar material for Infantry Officers of the USAR is provided by the Army Reserve Branch of The Adjutant General's Office. Information for the enlisted Infantryman is obtained from other Department of the Army agencies.

From Infantry Branch

INFANTRY Branch receives numerous queries from officers concerning assignments, promotions, schooling and other matters which affect their careers. Frequently, the same question or similar questions are asked by many officers. It is believed that answers to such questions may be helpful to most Infantrymen. In this issue, answers will be given to the queries received most frequently on military and civilian schooling and on specialization. Subsequent issues will answer questions on assignments and personnel actions. While this material cannot cover the peculiarities of every individual case, it will provide general information which applies to most cases and which may serve as a basis for personal planning.

When can an officer expect to attend the Infantry Officer Advanced Course?

The Regular Army officer will attend the Infantry Officer Advanced Course between his fifth and twelfth year of promotion list service. However, every effort is made to program attendance before he completes eight years of promotion list service. Reserve officers are eligible for either the Regular or the Associate Infantry Officer Advanced Course. Normally, the Reserve officer will attend the Associate Infantry Officer Advanced Course prior to completing his fifteenth year of service.

Must an officer apply to attend the Regular or Associate Infantry Officer Advanced Course?

The Regular Army officer need not apply. He will attend automatically. This is not the case for the Reserve officer. The Reserve officer who is not selected for the Regular Course may attend the Associate Course in one of two ways. He may be sent in a temporary duty status while en route to a new permanent station either in the United States or overseas. In this case, a scheduled class must be available at the time the officer is due to move and the schooling must not delay his arrival at the new station beyond the date on which his presence is required. If not selected in this manner, an officer stationed with a unit in the United States may apply through channels to the Commanding General, United States Continental Army Command, as outlined in Department of the Army Pamphlet 20–21. If approved, he attends on unit orders in temporary duty status and returns to his unit.

Must an officer apply to attend the Command and General Staff College?

No. An officer need not apply to attend the Command and General Staff College. The Regular officer's eligibility for attendance at the Regular Course commences when he has completed eight years of commissioned promotion list service and continues through the fifteenth year. During this period, every eligible Regular officer is automatically considered each year until he is selected or until he passes from the eligible zone. If not selected to attend the Regular Course during this period, he will be considered for attendance at one of the Associate Courses between his fifteenth and nineteenth year of commissioned service. The age limitation for selection to the Regular Course is 41.

The Reserve officer is considered for the Regular Course between his eighth and fifteenth year of Federal commissioned active duty service. Concurrently, he is also eligible for the Associate Course from his eighth to nineteenth year of commissioned service. Every eligible Reserve officer is considered for either the Regular Course or the Associate Course.

The maximum age limitation for both the Regular and Reserve officer to attend the Associate Course is 44.

What are the years of eligibility for attendance at the Armed Forces Staff College and for War College level courses?

Every Regular Army officer who is a graduate of the Command and General Staff College or who has equivalent credit is considered for attendance at the Armed Forces Staff College between his tenth and twenty-first year of promotion list service. A Reserve officer with a minimum of ten years commissioned service and not more than fifteen and one-half years total Federal service is considered.

Consideration for War College attendance is given to every eligible Regular Army officer between his fifteenth and twenty-third year of active commissioned service. For the Reserve officer, years of service is based on Federal commissioned active duty.

Is there a maximum age limitation for consideration for the Armed Forces Staff College or for War College level courses?

No. There is no maximum age limitation for these schools.

What is Operation "Bootstrap"? What is necessary to qualify?

Operation "Bootstrap" (or Final Semester Plan) is authorized by AR 621–5. Training permitted by this regulation was specifically set up to assist officers to complete the traditional residence requirements for a baccalaureate or advanced degree. To qualify:

1. An officer must be able to attain his degree within one semester or two quarters. In exceptional circumstances, an additional summer school session may be authorized.

2. The applicant must have a minimum of three years of continuous active Federal service and normally not more than fifteen years service for retirement purposes.

3. The Reserve officer must request, or have been approved for, extended active duty.

4. The officer must agree to remain on active duty for a minimum of four years subsequent to completion of training.

Does the government pay the tuition fees for officers approved for Final Semester training?

No. All expenses incurred in connection with this training are borne by the individual, including tuition, fees, books and necessary travel. However, during Final Semester training the officer does receive authorized pay and allowances.

When can an application be submitted for Final Semester Plan training?

Applications may be submitted at any time through channels to the Adjutant General, Department of the Army, Attention: Infantry Branch. An application must be indorsed by the individual's commanding officer indicating approval or disapproval and must state the date on which the applicant will be available to enter school, if selected. At the same time, a signed statement from the accredited college or university must be submitted stating that the officer requires a certain number of credit hours for graduation; that he can complete this work by full-time attendance, from a starting date to a graduation date; and that, provided he receives acceptable grades, he will be awarded the appropriate degree.

Is Final Semester Plan training approved only in conjunction with a permanent change of station?

No. An officer may attend in a temporary duty status en route to a new station, or he may also attend in a permissive temporary duty status and return to his organization upon completion of training. Attendance in this latter manner requires that his commanding officer release him for schooling during the time required.

What are the current regulations governing the Civil School Program?

AR 350–200 and AR 350–205.

SCHOOL LISTS 1959-1960

Starting with this issue, *Infantry* will publish the names of Infantry officers selected to attend service schools. The first lists appear on page 70.

Are there maximum age limitations for Civil School training?

Yes. The regulation places an age limit of 37 on work for a master's degree and 42 on work for a doctor's degree. However, under present policy, no applications for master's degree training are being returned prior to the time the applicant reaches age 40.

If an application for Civil Schooling is submitted and is not favorably considered the first time selections are made, must it be resubmitted?

The fact that an officer is not initially selected does not preclude subsequent consideration. All active applications will be reviewed each time selections are made. An application is active until the applicant withdraws it, declines training for which selected, or is no longer eligible by virtue of age.

When can applications for Civil Schooling be submitted?

Applications for Civil Schooling may be submitted at any time through channels to the Adjutant General, Department of the Army, Attention: Infantry Branch.

How are selections for Civil Schooling determined?

Selection is competitive and is based on a comparative evaluation of the military and undergraduate records of officers who have applied.

What is the latest date on which an application may arrive at Department of the Army and still be considered for the 1960 Civil School Program?

Applications should arrive in Infantry Branch prior to 1 November 1959.

What are the applicable regulations for Airborne, Army Aviation and Ranger training?

Airborne: AR 611–7, dated 29 November 1956, and Change 2, dated 21 February 1958. Army Aviation: AR 611–110, dated 23 November 1956, to include Change 5 dated 30 December 1958. Ranger: no specific AR, but the scope of the course and prerequisites for attendance are set forth in Department of the Army Pamphlet 20–21, the Army School Catalog.

Can an Infantry officer above the grade of lieutenant apply and be selected for aviation training?

Yes. In accordance with AR 611–110, Change 5, a limited number of captains, majors and lieutenant colonels may be entered into flight training to fill established aviation positions. Since a large number of officers apply for limited training spaces, the program is extremely competitive. Selections are made on a best-qualified basis in accordance with the applicant's manner of performance and military merit.

Does the Infantry officer who is an aviator lose out on advancement and higher schooling because of his aviation specialty?

No. The aviator receives equal consideration with all other Infantry officers for advancement and career service schooling. Dependent on requirements, Infantry Branch rotates officers to ground duty to maintain branch qualification in accordance with AR 600–105.

Is an officer who has received several assignments in the Research and Development field, or in any other specialist field, considered a specialist, and will he continue to be restricted to such assignments?

Not necessarily. Actually, an officer is not a true specialist until, in accordance with appropriate regulations, he voluntarily applies in writing for the particular specialist field in which he is interested. If he is accepted, his assignments are monitored so that he gets alternating or continuous specialist assignments, depending on the field. The officer who does not volunteer but has served in specialist areas is not considered a specialist and will not be restricted to specialist assignments. However, it may be necessary, on occasion, to assign such an officer to a critical position in the specialty field for which he is qualified.

Should a record of completion of academic courses in civilian schools, as well as extension courses from military schools, be submitted to the Branch?

Yes. This is extremely important. It is the responsibility of every officer to insure that his DA Form 66 is kept current. Entries included in Item 16 (Civilian Education and Military Schooling) of Form 66 are considered in connection with all assignments.

Is there any utilization connected with language training received under the provisions of AR 350–24?

Selection for training under this program is not contingent upon an immediate utilization assignment. However, officers otherwise eligible are normally selected for language training just prior to a scheduled overseas tour in the area of language fluency.

If an officer is already proficient in one foreign language, can he be selected for additional language training under the provisions of AR 350–24?

No. This program is designed for officers who do not possess a foreign language proficiency. Officers already proficient, or who once were, should "brush up" in language refresher programs available at local education centers.

What are the formally recognized fields of specialization in the Army?

The recognized fields of specialization are: Army Aviation, Intelligence, Atomic Energy, Research and Development, Logistics, Civil Affairs and Military Government, Information, Army Security, and the Foreign Area Specialist Training Program.

From Army Reserve Branch, TAGO

The following items provide information which answers some of the queries received most frequently by the Army Reserve Branch.

Reserve Promotions

Promotion of Reserve officers is governed by the Reserve Officer Personnel Act of 1954.

Whenever a unit officer has completed the minimum time-in-grade provided by this Act (three, two, four and four years in grade of second lieutenant, first lieutenant, captain and major, respectively) he may be recommended and selected for promotion whenever a vacancy in the next higher grade occurs in his unit.

Non-unit officers are considered for promotion without regard to vacancies after completing the following minimum time-in-grade: second lieutenant, three years; first lieutenant, four years; captain, seven years; and major, seven years. In order to be eligible for promotion, non-unit second lieutenants, first lieutenants, captains and majors must *also* complete three, six, twelve and seventeen total years, respectively, of commissioned service.

Unit officers are considered for promotion based on vacancies and are evaluated on the "best qualified" concept (the best qualified officer of all those eligible in a given unit). Non-unit officers are considered for promotion when they meet the criteria (zone) and are selected by the "fully qualified" method; i.e., morally, physically and professionally qualified to serve in the higher grade upon mobilization. An officer must be fully qualified before he can be considered best qualified.

Promotion Responsibility

Promotion of unit officers through the grade of lieutenant colonel is effected by boards convened by the area commander. Non-unit officers not on extended active duty are also considered by boards convened by the area commanders. Those non-unit officers who are on extended active duty as officers, warrant officers or enlisted men are considered by a selection board which convenes each November at Department of the Army. This board considers all officers who will complete the time-in-grade and service requirements prior to 31 December of the following year.

Officers selected for promotion will be promoted on the day prior to the date they complete the above requirements.

Promotion Boards

Selection boards for USAR promotions are composed of at least five officers, all senior to the officer being considered. At least 50 percent of the membership must be Reserve officers. Evaluation of officers by promotion boards is based on a review of the officer's 201 file, accompanying recommendations, fact sheets, etc. Boards are responsible for considering the officer's entire record of service. Among other factors, consideration is given to manner of performance, military education, civilian education, awards and decorations, assignments and versatility. No one factor or qualification is given special consideration.

Promotion of Second Lieutenants

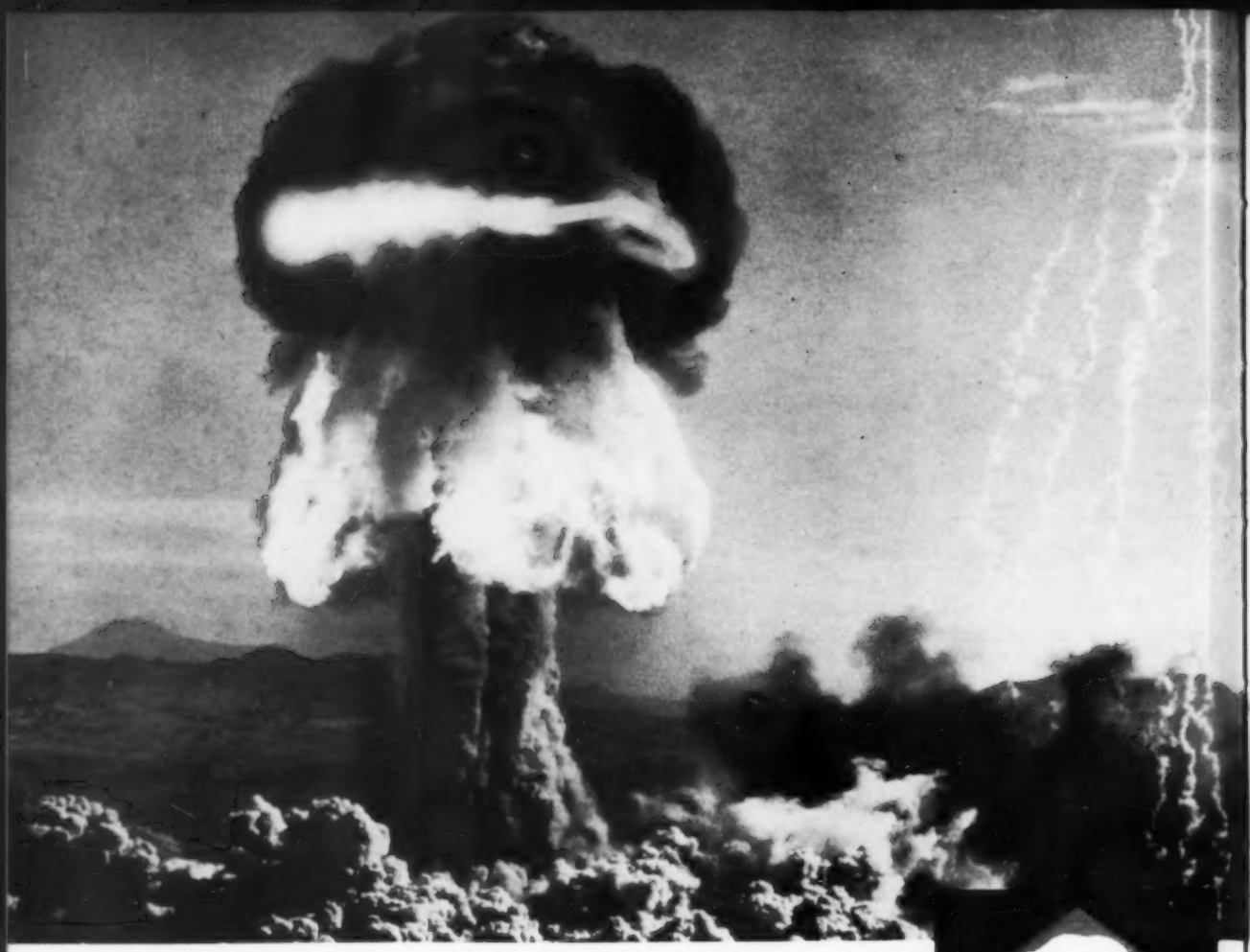
Promotion in the USAR of all non-unit second lieutenants has been delegated to area commanders and in most cases redelegated to lower commanders. This promotion is accomplished upon completion of three years time-in-grade, without selection board action. Commanders who do not consider the individual qualified for promotion must submit reasons to Department of the Army for withholding the promotion. If promotion is not approved by Department of the Army, necessary action is taken to eliminate the officer from the Reserves. The above procedure does not apply to the obligated reservist.

Promotion to Colonel, USAR

A promotion selection board was scheduled to convene at Headquarters, Department of the Army, in March 1959 to consider all eligible USAR lieutenant colonels for promotion to colonel. To be eligible for consideration an individual must have served 11 years in the USAR grade of lieutenant colonel. In addition, over 18 years total commissioned service is required, either actual or constructive, based on age.

Individuals in the above category include all USAR lieutenant colonels serving on active duty as officers, warrant officers or enlisted men, and those not on active duty and not assigned to a USAR unit. Eligible personnel who are not considered by the regular selection board will be considered by a standby board and, if selected, will be promoted without interference of promotion eligibility date.

Continued on page 69



By Col Frank M. Izenour

ROCID CHANGES

Here, in some detail, are recent organizational and equipment changes announced by Department of the Army for the pentomic Infantry division.

AFTER TWO years of testing and evaluating the pentomic Infantry division, Department of the Army has announced organizational and equipment changes which bolster the division's combat effectiveness. Almost every element of the division is affected. Some units gain or lose only a few men or items of equipment; others undergo a major face-lifting (Figure 1).

Roughly, these changes occur in three main areas: fire support, surveillance and the basic battle unit. Artillery fire support has been increased and centralized. Surveillance and target acquisition capabilities have been increased. The Infantry battle group, the basic battlefield unit, has been reorganized.

Major changes have been made in the division artillery, the most significant of which is the provision of a direct support battalion for each of

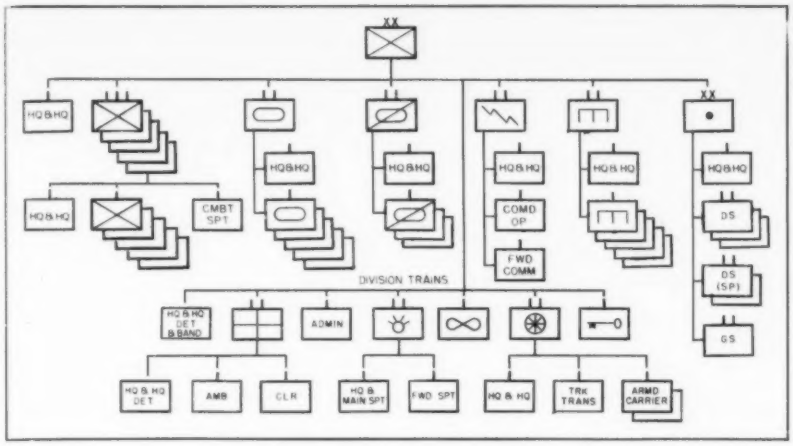


Figure 1. The Infantry division.

the five battle groups. This change adds eighteen 155mm howitzers and eliminates ten 4.2-inch mortars. However, as will be discussed later, six 4.2-inch mortars are retained in the battle group as the organic fire support weapon.

As changed (Figure 2), the division artillery now has five direct support battalions, each of which has a headquarters and service battery, a 105mm howitzer battery and a 155mm howitzer battery. This organization has been achieved by taking the five 105 batteries from the old 105 battalion and the two 155 batteries from the old composite battalion, by deleting the 4.2-inch mortar battery in each battle group and by adding three new 155 batteries. Two of the direct support battalions have self-propelled weapons while the others have towed weapons. A general support battalion replaces the former composite battalion. This new battalion is organized into a headquarters and headquarters battery, an 8-inch howitzer battery of four howitzers and an Honest John rocket battery of two launchers.

The pressing need for an increased battlefield surveillance capability within the division is recognized by the changes made in this area. With newly developed equipment and with combat surveillance and target acquisition capabilities provided down to the rifle company level, a major step has been taken toward meeting this requirement.

The battle group's surveillance problems are partially solved by the establishment of an organic radar section in the combat support company. This new section is equipped with two AN/TSP–21 medium-range radars and five AN/PPS–4 radars for short-range work. Such equipment permits ground surveillance of the gaps between the units of the battle group as well as to the front and flanks.

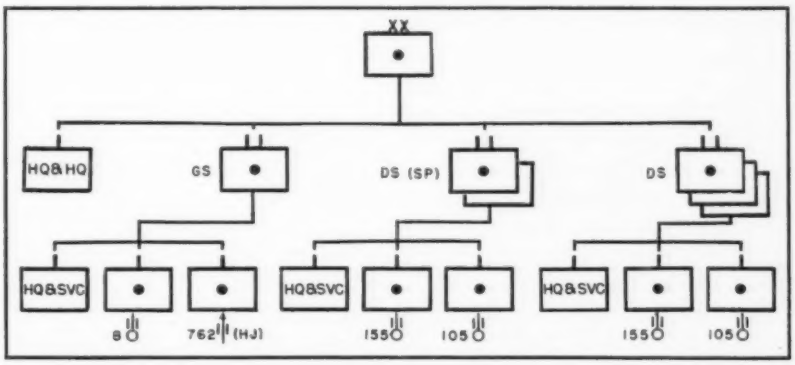
At division level prior to this reorganization, all surveillance equipment and personnel were located in the cavalry squadron. However, the aircraft needed to carry this equipment were assigned to the aviation company. This disjointed arrangement led to many problems. Now, the equipment, the personnel, and the aircraft are combined in a new aerial surveillance platoon in the aviation company. The surveillance capabilities of this platoon include aerial radar, aerial photography and a surveillance drone system. Such capabilities, in general support of the entire division, increase over-all combat effectiveness, particularly in situations when the division is widely dispersed with large gaps between units.

A number of important changes have been made in the battle group, the most obvious of which is the addition of a fifth rifle company and a combat support company (Figure 1). These changes result in a battle group similar to that in the Airborne division, and increase the flexibility and effectiveness of this basic battle unit.

The combat support company includes all of the tactical support or "fighting" elements, while the administrative, logistical and control units remain in the headquarters and headquarters company. This arrangement provides a more efficient organization and makes a desirable reduction in the strength of the headquarters company.

A look at the headquarters and headquarters company (Figure 3) reveals that the reconnaissance and assault gun platoons and the counterfire squad are missing. The reconnaissance platoon and counterfire squad, as well as the assault weapon platoon which replaces the assault gun platoon, are now located in the combat support company. Other

Figure 2. The new division artillery.



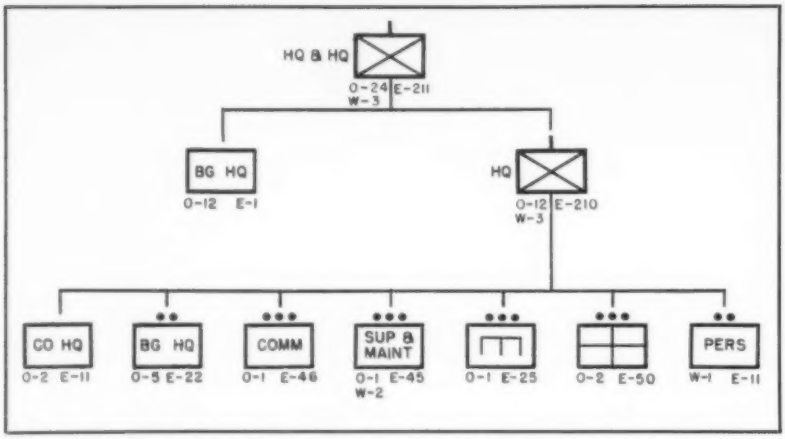


Figure 3. The battle group headquarters and headquarters company.

changes, not revealed in the organization chart, have been made internally.

A deputy battle group commander has been authorized, along with a driver, radio and ¼-ton truck for his use. Experience with the Airborne battle group revealed that this additional officer at the command level facilitates control of the battle group. While he may be used in whatever manner the battle group commander desires, likely assignments are to command the reserve, to lead a task force, or to control detachments left in contact during retrograde actions.

The S4 is now authorized an AN/VRC–18 radio so that he can operate in the battle group administrative net and simultaneously monitor the command net. Also, the S4 has been given an assistant—the supply and maintenance platoon leader—who has been upgraded to captain and given the title of Assistant S4. The truck squad of the supply and maintenance platoon now has two additional 2½-ton trucks. This addition provides a truck for the transportation of the baggage, mess equipment and mess personnel of each company as well as for other required transportation needs.

A platoon leader has been authorized for the communication platoon. This officer will also assist the battle group communication officer.

The engineer platoon gains one 2½-ton truck and trailer for the platoon headquarters, and a 2½-ton dump truck with pole-type trailer replaces the conventional 2½-ton truck and trailer in each squad. The platoon also is authorized a radio net utilizing AN/PRC–10 radios. The platoon leader controls the net with his AN/PRC–10 and operates in the battle group administrative net with his AN/VRC–18. Earth-moving equipment has been added to the platoon in the form of a pneumatic-tired tractor with a 1½-cubic yard scoop, dozer blade and fork lift.

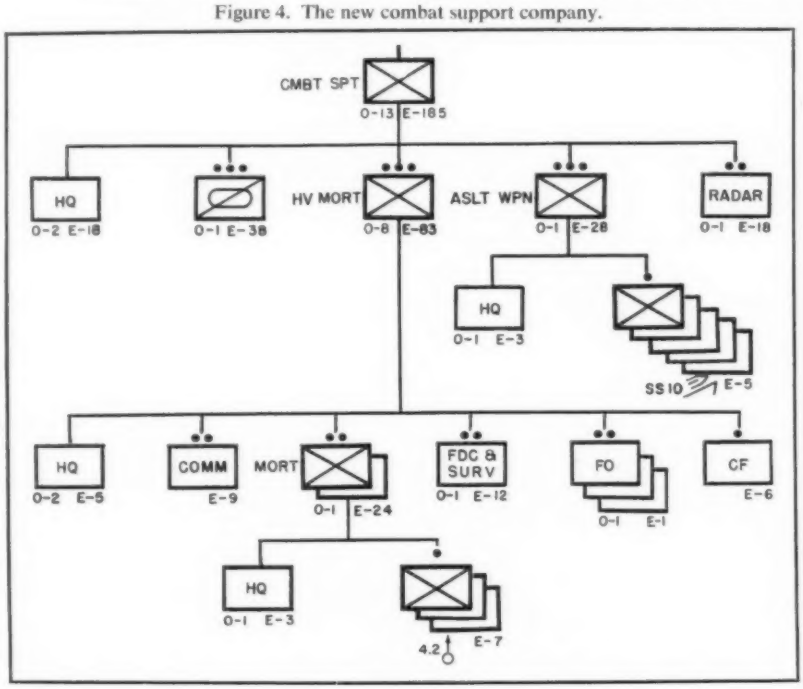
No changes are shown for the medical platoon. However, this unit is being revamped. Information on these revisions will be covered in a subsequent issue of *Infantry* magazine.

As mentioned previously, the combat support company (Figure 4) contains three tactical support platoons—reconnaissance platoon, mortar platoon and assault weapon platoon—and a radar section. The tactical elements of this company will receive orders directly from the battle group headquarters. Present concepts for the employment of this unit place the company commander in much the same relationship to the subordinate elements of the company as the commander of the headquarters and headquarters company.

The reconnaissance platoon retains the same organization and structure it had in the old battle group.

The new mortar platoon with its six 4.2-inch mortars is by far the largest platoon in the battle group. It replaces the mortar battery and returns the heavy mortar to the Infantry. Thus the Infantry battle group retains an organic fire support unit and gains the increased range of an additional artillery battery which is

Figure 4. The new combat support company.



contained in the direct support artillery battalion. The fact that it is commanded by a captain underscores the importance of this platoon. The manner in which it is organized and its dual radio equipment—it has both Infantry and Artillery radios—give the mortar platoon considerable flexibility. However, it is tied to wheeled vehicles which limit its cross-country mobility and result in a reaction time (getting in and out of action) that is too slow for modern combat operations.

The mortar platoon may be employed in several ways. It may be placed under the operational control of the direct support artillery battalion or it may be given a separate mission. It can operate as a platoon or as two sections. But irrespective of how they are employed, the mortars remain immediately responsive to the needs and desires of the battle group commander.

The new assault weapon platoon is equipped with the SS10 missile,[1] which can be fired either from a ¼-ton truck or from the ground. The platoon's pentagonal organization permits considerable flexibility in its employment. This organization was tested recently by the Infantry School and additional information on the platoon and the SS10 will be published in *Infantry* and in training literature as soon as it is available.

The radar section with two medium- and five short-range radar sets is organized on a team basis. Normally, the two-man AN/PPS–4 ("Silent Sentry")[2] teams will be attached to the rifle companies. This short-range radar may be man-carried or transported on available company transport. While the medium-range AN/TPS–21 is also portable, it normally will be carried on a ¼-ton truck which is provided for this purpose. This set will usually be employed in general support under the operational control of the battle group S2. Each of the AN/TPS–21 teams is equipped with an AN/VRC–10 radio, and the section headquarters has an AN/VRQ–3, mounted in a ¼-ton truck.

The major change in the rifle company is immediately apparent (Figure 5). It has returned to a triangular structure. The fourth rifle platoon has been eliminated so that the company commander can exercise tighter control. Also, elimination of one platoon provides the men required for the fifth rifle company and other new units.

To provide additional spaces for all of the necessary changes without increasing the over-all manpower requirements of the division, other reductions were made within the rifle company. All messengers, one cook, the one cook's helper and one 3.5-inch rocket launcher team per rifle platoon have been eliminated.

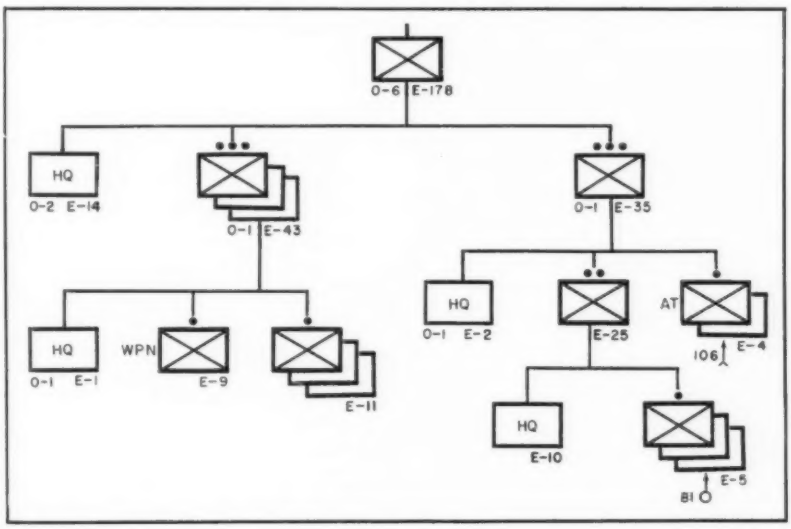
The rifle company's communication system, however, has been augmented. The company commander now has an AN/VRQ–3 radio in place of the AN/VRC–18, which enables him to operate in both battle group nets simultaneously. He retains the AN/PRC–10 for use in the company command net. The rifle platoon leader has been given an AN/PRC–10 for the company net. He will use his AN/PRC–6 in a newly established platoon net which will link the squad leaders and platoon sergeant with the platoon leader. The company headquarters also receives an SB–22

COL FRANK M. IZENOUR was graduated from the United States Military Academy in 1938. During World War II, he served in North Africa with the 7th and 30th Infantry Regiments of the 3d Infantry Division, and in 1944 he was named commanding officer of the 7th Infantry. Following a tour as assistant G1, Headquarters, Army Ground Forces, he entered the Command and General Staff College and upon graduation was appointed an instructor at the college. Afterwards, he was graduated from the Armed Forces Staff College and was assigned to Trieste United States Troops. Returning to the United States he attended the Army War College, following which he was assigned to the Military Personnel Management Division, Department of the Army. He then went to Korea where he served as G3, Eighth U. S. Army, and later as commander of the 17th Infantry Regiment. In 1957 Colonel Izenour began his current tour at the Infantry School as Group Chief in the Tactical Department. He is now director of the Command and Staff Department.

[1]See "Death to the Tank" in the July-September 1958 *Infantry*.

[2]See "We Must Fight at Night" in the October-December 1958 *Infantry*.

Figure 5. The rifle company.



switchboard as a replacement for the SB–18/GT.

Since the M14 rifle and the M60 machinegun are now in production, these weapons are shown in the new TOE in place of the M1 rifle and the M1918A4 and A6 machineguns. The automatic rifle (BAR) will be replaced by a modified version of the M14. The M15 will not be produced since it has been found that the lighter barreled M14 will stand up under sustained automatic fire. The modified M14 will have a bipod, hinged buttplate and a ventilated upper hand guard.

More experience with this division may require additional changes. Some areas in which modification may be needed are discernable; for example, the rifle platoon leader is equipped with two radios, but is not authorized anyone to carry and operate them. He is forced to "borrow" a rifleman to do this job, or to carry both sets himself.

These are the highlights of the revised ROCID division. To understand all of the specific changes in personnel and equipment will require detailed study of the new TOE.

Additional details on the new TOE, necessary revisions in tactics and any future changes in the division will be covered as they become available.—Editor.

Thoughts on ROCID Changes

By Capt Charles E. Thomann

If not already done, somebody should sit down and do a learned paper on why uneven numbers of military units seem to work out tactically best! At any rate, the addition of the fifth company to the battle group has provided us with a more flexible organization and solved some major problems.

For example, the four-platoon companies were a bit unwieldy, as were the four-company battle groups. In position defense it was hard to position the reserve because of the amount of terrain to be covered in the rear. Now the frontage of the battle group can remain much the same, but we achieve adequate defense in depth by the use of two companies in reserve. This also applies in the attack. The weight of two companies in reserve will count heavily. Five companies also makes for more combinations to fit the local situation.

The company, by the loss of one rifle platoon, has gained much in control. Three rifle platoons are about right when the situation gets fluid and control becomes of paramount importance. The span of control can only be stretched so far and making the company commander a major isn't the answer! The only other significant change I would like to see in the company organization at this time is the addition of one 60mm mortar with each rifle platoon. This handy little weapon can prove very decisive when needed and it demands little equipment. As was brought out in a recent *Infantry* article, the 60mm mortar is quite effective when used without the bipod. A little practice is all that's needed.

Another advantage of the five-company battle group is the flexibility achieved in a logical command structure. The battle group commander can turn most of his attention to the control of his forward troops while the deputy battle group commander controls the reserve. If the situation dictates, and we stress decentralization in nuclear warfare, the battle group span of command can be simplified by the executive officer's commanding two companies (not always the same ones) while the deputy commander commands the remaining three. This leaves the battle group commander free to direct the entire operation with a clearer view, and his control is also simplified with the additional gain of faster reaction time by the companies.

The new support company will have its problems, but the weapons within it are certainly better off when divorced from the headquarters, headquarters and service company. Tactical and administrative units should always be kept separate—no matter what the level of command. The reduction of the 4.2 mortars to six is certainly logical and formation of this battery into a platoon should facilitate rather than hinder operations. With its new additions, the support company can be commanded by a captain—we gain nothing by having the company commanded by a major.

As an Infantryman I appreciate all the artillery support I can get. The additional 155mm support is loudly welcomed. My personal feeling is that we now have the type of organization we have been looking for. More changes must come as weapons improve, but we have gained in fire support and flexibility, and now, more than ever, our Infantry division has the punch it needs for today's war.

The opinions expressed in this article are those of the author and do not necessarily reflect thinking of the Infantry School.

CAPT CHARLES E. THOMANN received his Infantry commission upon graduation from the University of Denver in 1949. In 1957 he attended the Infantry Officer Advanced Course and is now an ROTC instructor at Southwest Missouri State College.

SPECIAL FORCES

By Capt Roger M. Pezzelle

Special Forces—now an important part of the Infantry—is a military organization which is designed to plan for and employ guerrillas against the enemy in future combat.

MOST Infantrymen have some knowledge of our Special Forces units and of the Army's growing interest in the field of unconventional warfare. However, for various reasons little has been said or written on this subject. Consequently, many Infantrymen do not fully understand or appreciate the mission and combat potential of these forces, or the effects they can have on the tactical battlefield.

The United States Army's Special Forces Groups, previously classified as branch immaterial, have recently been designated as branch Infantry. Members of these units are volunteers. They willingly agree "to participate in Airborne training and to perform parachute jumps from aircraft in flight," and "to infiltrate deep within or behind enemy lines during wartime for the purpose of conducting guerrilla operations against the enemy."

Traditionally, guerrilla warfare has been held suspect by professional soldiers because of its irregular tech-

CAPT ROGER M. PEZZELLE received an OCS commission at Fort Benning in 1943. He then served with the 197th Infantry Battalion at Camp Blanding before going to Italy, where he was a platoon leader with the 473d Infantry Regiment. Returning to the United States he became an OCS tactical officer at the Infantry School. In 1948 he returned to Italy where he served with the 351st Infantry Regiment as a platoon leader, company executive officer, battalion S4, regimental S2 and as assistant regimental S3. He then returned to the Infantry School for the Basic Airborne and the Jumpmaster Courses, after which he commanded a company of the 505th Airborne Infantry Regiment at Fort Bragg. There he joined the 10th Special Forces Group and later accompanied that organization to Germany. In January 1958 he completed the Advanced Course at the Infantry School and became a project officer for the School's Combat Developments Office.

niques, organizational deviations and general unmilitary nature. However, the United States made an effort in this field in World War II with the organization of the Office of Strategic Services (OSS), a part of whose total effort was guerrilla warfare. It is unnecessary to recount the achievements of the guerrillas of that era since the exploits of the OSS have been fairly well covered. It is sufficient to point out that the activities of the OSS were global in scope and that the praise heaped upon the OSS-directed guerrillas is a part of the history of that war and its decision. That initial venture provided a sound foundation for the establishment of Special Forces, a military organization designed to exploit the guerrilla potential which exists and will continue to exist in the face of the communist threat.

The Special Forces Group is made up of operational teams. These teams vary in size, depending upon their mission, but are basically similar in construction. Each is composed of highly trained leaders, demolition experts, communicators, weapons specialists and medical aidmen. The basic team, called an FA team, has 15 officers and men. Commanded by a captain, it has the mission of infiltrating by land, sea or air behind enemy lines to *organize, train, supply, control* and *direct* a guerrilla "regiment" for the conduct of guerrilla warfare.

The key to understanding the U.S. Army concept of guerrilla warfare lies in the meaning of the italicized words above. In guerrilla warfare each of these words has a special meaning.

Organize means to unite under command without bringing together physically; it means to systematize information gathering, internal communication, normal subsistence means and many other things. In short, organizing facilitates the accomplishment of all other team responsibilities.

Training is of a special nature because it is conducted within the enemy area without benefit of normal training facilities. Also, there may be a language barrier between instructor and trainee. Therefore, training is confined to the techniques of combat for individuals and small units, and is drastically limited in time. A guerrilla who sees and touches demolitions for the first time in the afternoon may use them against the enemy that same night with combat being his first practical exercise.

Supply by an outside source is an absolute essential to successful, sustained guerrilla operations. While our concept requires maximum use of supplies from within the area of operations, the essentials for waging combat—weapons, ammunition, demolitions and medical supplies—must come from without. Sometimes even food must be provided, but generally the guerrilla force feeds itself. The system of caches and the issuing of supplies in guerrilla operations are among the most important facets of Special Forces techniques and actually deserve separate and full treatment.

All Special Forces operations begin with a thorough briefing.

Control means responsiveness on the part of the guerrilla force to the will of the U.S. Army commander on the friendly side of the lines. This control is not automatic; the Special Forces team achieves it by the exercise of mature judgment, superior knowledge, trustworthiness, leadership and courage. Normally, guerrillas are *commanded* by one of their own. The team controls the commander, thereby assuring that the guerrilla force executes the desired mission at the desired time, to obtain maximum results in coordination with the operations of regular forces.

Direct means to guide the overall operations of the guerrilla "regiment" toward the accomplishment of the broad mission assigned to each team initially.

To the conventional soldier, the term guerrilla "regiment" is the most mystifying of all. This term connotes all the essentials of our concept—that is, organization, control, direction and coordination. It does not mean an organization of fixed size, attacking and defending in a relatively confined area as a unit. The strength of these "regiments" may vary from a few hundred to more than a thousand. The strength is dictated by the manpower and subsistence potential of the particular area; by geographical, social, economic and political factors; and by our capability to supply the force at a particular time.

This brief discussion of the mission of the basic operational team should enable us to dispel some of the doubts about guerrilla warfare. There is general misunderstanding about the time it takes to achieve active guerrilla operations after the infiltration of Special Forces teams. The field manuals on this subject describe seven distinct steps in organizing and developing a guerrilla force. They are psychological preparation of the population in the potential area of operations; initial contact with resistance elements; infiltration of the Special Forces team; organization of the guerrilla force; build-up of the force in strength, equipment and capabilities; exploitation of the guerrilla force; and finally, demobilization of the force after the regular combat zone passes beyond the area.

Every operation is carefully planned. Guerrilla forces thrive on concurrent operations during the "build-up phase."

This is a logical sequence that facilitates training, but such terms as "build-up" and "exploitation" are frequently misunderstood. In guerrilla activities, time is of the essence. Operations against the enemy commence almost immediately after infiltration of the team, increasing in intensity and scope as the guerrilla force grows. In many cases, the Special Forces team itself executes interdiction of enemy lines of communication immediately upon entry into the area. There is no lagging while an extensive recruiting campaign and training program are conducted. Successful operations provide the team with its best recruiting tool. But precautions must be taken to insure that the unit is not infiltrated by the enemy.

The so-called "build-up phase" is a misnomer. This term implies that little is done during this phase except to gather strength and supplies, and to train for a special "D-Day." Such was the case in certain completely clandestine operations in France during World War II, but this is not the general concept.

The guerrilla force thrives on concurrent operations during the build-up phrase. Its best training is "on-the-job training" attacking railroads, communication facilities, oil dumps, patrols and so on.

Also greatly misleading is the term "exploitation phase." This term leads one to believe that the guerrilla force is not extensively employed until just prior to link-up with a regular force. On the contrary, the guerrilla force is employed to the fullest extent possible from the moment the first attack is made.

The manual may further cause some to believe that coordinated action with regular forces is also deferred until just prior to link-up. In reality, all Special Forces-directed guerrilla activity is constantly coordinated with the operations of regular

Good communication is vital.

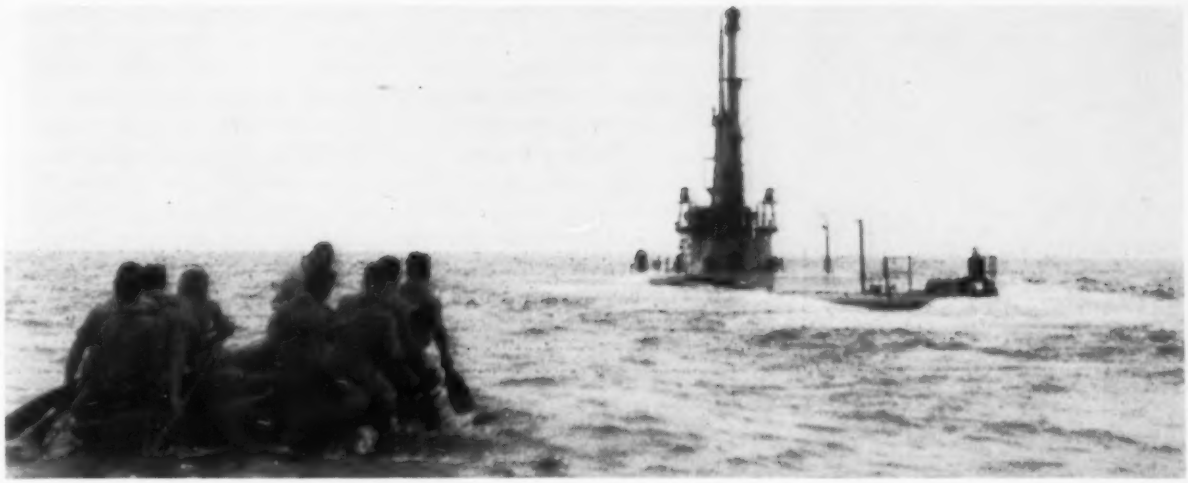
forces. However, the level at which this action is coordinated depends upon the scope and timing of the operation, and upon the depth of the guerrilla force behind the lines.

Another common misconception is that Special Forces operations are entirely strategic in nature. For the most part, this misconception stems from the false association of Special Forces with the cloak and dagger aspects of OSS. Additionally, official publications give little space to Special Forces operations under the control of the field army and lower levels of command. Actually, Special Forces conducts both strategic and tactical operations.

Time is a basic element which determines whether an operation is strategic or tactical. Space is no longer of great consequence, due to our advanced capabilities for movement. Whether or not a particular enemy force or collection of supplies and equipment is of tactical significance to the enemy is wholly dependent upon his ability to move those troops or supplies to an area *in time* to influence the decision at that point. Because of this capability of rapid movement, tactical reserves of men and materials will be held deeper in enemy territory. This means that areas which heretofore have been beyond the field army's immediate concern are now within its scope of operation. (The range of tactical missiles has also increased this depth.) Guerrilla forces in these deeper areas may contribute signficantly to the tactical operations by *timely* attacks on lines of communication, troop movements and supply installations. Additionally, nuclear-age concepts of dispersion of forces and depopulation of the battlefield will allow guerrilla forces an opportunity to work closer to the battle area. In the past, the primary reason for the absence of sustained guerrilla activity close to the main battle positions was the density of enemy combat troops. This situation deprived guerrillas of adequate refuge areas and freedom of movement, and made them subject to constant pressure. This may not be the case in future war. But even if guerrillas are still unable to exist close to the main battle area, they will nevertheless be able to thrive and to operate in the deeper portions of the field army area of responsibility, where they have not been in the past. Thus they will be an extension of the field army commander's combat forces, and will execute such missions as he may direct—in complete coordination with the tactical plan of operations.

Other activities, no less coordinated, but conducted outside the tactical area of operations, will also contribute greatly to the tactical decision. *Direct* or *indirect* effects on tactical operations can be achieved by guerrillas operating at great distances from the combat zone. A striking example of *direct effect* achieved at long range can be found by considering this possibility—should hostilities break out in Western Europe, we may find ourselves fighting a massive delaying action against an almost totally mechanized Soviet Army. This army's lifeblood—fuel—must be drawn

Supplies for sustained operations must come from outside sources by any means possible.



Special Forces teams are prepared for operations anywhere in the world and will be ready to infiltrate enemy territory by many means.

from Eastern European sources and transported across hundreds of miles of guerrilla-infested territory. Properly *directed* guerrilla forces, conducting continuous and widespread attacks and acts of sabotage against oil fields, fuel dumps, pipelines and all modes of fuel transport can be expected to reduce the flow of this critical item to a trickle. The effect will be swift, decisive and *direct*. Recall, if you will, the effect which the lack of fuel had on General Patton's Third U.S. Army at one notable stage of the campaign in France.

The *indirect* effects which guerrilla activities can have on tactical operations are many and varied. Probably the most important of these is the diversion of large enemy resources of manpower and supplies from the combat zone to hunt down or attempt to guard against guerrillas. Hitler overran Yugoslavia in a month, only to find that he needed 15 divisions to occupy the country and fight guerrilla forces. These 15 divisions did not participate in the attack on the Soviet Union, nor did they later contribute to the Nazi defense in the West. The effect was permanent, important and *indirect*.

To show how Special Forces can accomplish this job of supporting the tactical effort as well as the strategic plan, it is necessary to go back again to the basic FA team. The men who make up this unit undergo a diversified and rigorous specialized training program, in addition to the normal training given every Infantryman. After completion of basic, advanced individual and Airborne training, they are sent to service schools, where possible, for MOS training. Following this, each team member is thoroughly trained in subjects peculiar to Special Forces. This program includes techniques of organizing and developing guerrilla forces, methods of instructing guerrilla personnel, fieldcraft and survival, background studies for a particular area of operations and language training, to name a few.

At this stage, the well-trained individual specialists are prepared to receive their unit, or team, training. During this phase the teams learn to operate as cohesive units, practicing under field conditions the techniques they learned in earlier training. The unit training period includes all types of team operations, among them joint exercises. The teams also receive training in different environments. They go to Camp LeJeune for jungle and survival training; Camp Hale for mountain training; and Little Creek, Virginia, for amphibious training. At the end of the unit-training phase, the Special Forces team is prepared for operations anywhere in the world.

At the outbreak of hostilities, these highly trained teams will be ready to infiltrate enemy-held territory by many means, or could be left behind when friendly regular forces withdraw from an area. At this same time, many men from the overrun areas or the satellite nations will join active resistance groups. These will be men

Special Forces directed and controlled guerrilla units, and at times the Special Forces team itself, can sabotage enemy lines of communication and supply.

Special Forces Troops are trained in many special techniques. They can improvise means to provide terminal guidance for airborne assaults.

hungry for freedom, those bearing long-standing grudges against an oppressive state, men eligible for labor drafts and others with any of a dozen motivations. Special Forces teams can seek out and join with these groups, commencing active operations immediately, no matter how small.

Almost simultaneously, across the breadth of the entire theater of operations, from close to the battle area to deep within the enemy homeland, Special Forces teams will be able to direct guerrilla forces in continuous, lightning-fast attacks against lines of communication, storage areas, small groups of enemy soldiers, missile launching sites, airfields, isolated enemy installations and other objectives. These actions will be calculated to disrupt communication, destroy supplies, inflict casualties and draw enemy combat troops away from the main battle areas. Throughout the action a vast amount of information about the enemy and his activities will be acquired and passed on to friendly forces.

Nothing succeeds like success. The strength of the guerrilla forces and the intensity of operations grow continuously. Each attack, regardless of size, is a part of a Special Forces team's over-all plan designed to achieve specific results in coordination with tactical or strategic plans.

Such teams, operating within the area of responsibility of a tactical commander, execute missions in direct response to orders from that tactical commander, regardless of the level of command, from battle group to theater. This coordinated effort becomes more visible when the initiative is gained by the friendly forces. Then guerrillas begin to participate directly at close range in support of tactical operations. They give valuable assistance to airborne assaults: they secure drop and landing zones, provide terminal guidance to aircraft, recover equipment, aid in the assembly of units, conduct diversions to cause confusion, and delay enemy forces moving up to meet the air assault.

Guerrilla units also support deep penetrations by mounted Infantry or Armor. For example, a deep penetration is planned and will include a diversionary action by friendly regular forces on the right flank, so conceived as to cause the enemy to commit a known force in that area. Guerrillas, directed by Special Forces and under direct orders from the tactical commander, allow the enemy unit to pass en route to the area of the diversion. When the enemy discovers the true nature of the attack and the direction of the main effort, he turns to meet the main friendly force and finds himself continuously harrassed and ambushed during movement. Defiles are blocked or made impassable; his forces are channelized and vulnerable to atomic strikes. The guerrilla is capable of such significant action due to improved weapons systems and communication, both made available to him by the Special Forces team.

Special Forces teams can directly aid the field commander in many other ways. These teams, and the

Special Forces teams are now in position on both sides of the globe and are ready to meet the enemy with effective guerrilla warfare.

guerrilla units they control, can perform extensive reconnaissance and give general assistance to reconnaissance units, free prisoners of war and aid evaders and escapees. The possibilities for employment of guerrilla forces are limited only by the degree of preparation for such activity and the ingenuity of the commander.

The benefits to be derived from the Special Forces program are in sharp contrast to the austere conditions under which it can operate. The meagerness of guerrilla requirements is one of the most attractive features of this type of warfare, especially in these times of manpower and money shortages. In terms of manpower alone, consider that 100 of these 15-man teams, little more than the strength of a single battle group (1356), represent the potential of 100 "regiments"—behind the enemy lines.

The supplies for these "regiments" are as nothing compared to the requirements for a regular battle group. The uniform of the guerrilla is a distinctive armband or beret, nothing more. He lives where he can. His subsistence comes from the land. His necessities are weapons, ammunition, demolitions and medical supplies. These are standard, though other articles—boots and food in some cases —may be required. For his close-quartered, hit-and-run fighting, obsolete weapons may be used, thereby placing no demand on critical items for regular units. The guerrilla is inherently thrifty with supplies, if not spoiled with an excess of them, for his life is a continual battle for survival.

Not to be overlooked in the cost of these benefits is the fact that only a small special staff section is required at each level of command which exercises control over Special Forces activity. The size of this section depends upon the number of Special Forces teams under the control of the tactical headquarters, but in no case would it be very large. Also, there must be a compatible communication system, and the tactical commander must assume certain responsibilities with respect to support of the guerrilla forces. Primarily, however, this support would continue to come from higher headquarters and the Special Forces base.

Special Forces Groups are now in position on both sides of the globe. These volunteer teams are ready to meet the enemy in his own backyard with effective guerrilla warfare from the moment hostilities commence. The guerrilla is on our team. We must organize for him, plan for him and *use* him.

FIFTY-SECOND ANNIVERSARY

UNITED STATES ARMY INFANTRY SCHOOL

The United States Army Infantry School celebrated its fifty-second anniversary 1 April, rounding out more than a half-century of effort dedicated to the training and development of outstanding Infantry leaders. Victories on the battlefields of three wars attest to the success of this work.

Today's Infantry School, the foremost of its kind in the world, grew from the School of Musketry which was established in 1907 at the Presidio of Monterey. Six years later the school was moved to Fort Sill and finally, in 1919, it was established at its present location near Columbus, Georgia. Fort Benning, named for Confederate Brig Gen Henry L. Benning, a former resident of Columbus, was at first a tent camp. It has grown steadily since that time. The tents gradually gave way to frame buildings, many of which have now been replaced by concrete and brick structures. Land acquisitions over the years expanded the post from the initial 96,000 acres to the present 184,000 acres of varied terrain necessary for Infantry training.

As the post changed so did much of its teaching. New weapons, equipment, tactics and techniques, most of which were developed at Fort Benning, have required the School to alter its instruction to match the times and the needs of modern Infantry. The Infantry school has always kept its teaching abreast of technical developments and has helped greatly to shape Army thinking as the means of waging war have changed.

Today the Infantry School trains not only men from this country, but from 35 allied nations as well. It is performing a global role in the preservation of freedom. But more than this, it is dedicated to the task of training the best possible Infantryman, who can and will be a decisive force in any future conflict.

Instructors of the Infantry School Combat Conditioning Committee try out part of the experimental physical proficiency test.

Our Physical Unfitness

By Lt Col James E. Reilly and Capt Robert M. Garrison

There is considerable evidence that our soldier lacks the physical conditioning and stamina we will require for the modern battlefield. We must do something about this now!

MANY Infantrymen are concerned—and rightly so—about the apparent decline in the physical fitness of the American soldier. This concern is shared by other elements of the Army and by our national government, including the President of the United States.

Historically, we have considered the aggressive, physically hardened fighting man as the backbone of our Army and our national defense. Since we are not plush with manpower and can expect to be outnumbered in any future conflict, the quality of our soldier must to some extent compensate for our lack of quantity. This is particularly important today when it is obvious that conditions on the battlefield will demand increased hardiness and stamina.

The problem seems to stem in part from inadequate physical conditioning of the American youth in general, and in part from improper or insufficient effort within the military establishment. That improvement is needed nationally is indicated by the shocking number of youths who are rejected for military duty by Se-

lective Service because of physical deficiencies.

Aware that our present sedentary way of life, in which almost everyone rides, uses labor-saving gadgets and overeats, undoubtedly affects the physical fitness of our youth, President Eisenhower established the President's Citizens Advisory Committee on Fitness of American Youths and the President's Council on Youth Fitness. The purpose of these two groups is to determine the extent to which our youngsters are becoming soft, and to alert the American people to this problem.

Within the Army, dissatisfaction with the conditioning of the soldier led to a Physical Fitness Seminar at the United States Army Infantry School last year. This seminar, the first of its kind ever conducted by the Army, brought together representatives from major Army headquarters and commands; service schools; the Marine Corps; the Air Force; the American Association for Health, Physical Education and Recreation; the U. S. Office of Education and the President's Council on Youth Fitness. One of the goals of the seminar was to assess the current physical fitness of the Army and to recommend future standards.

Further attention was directed to the problem by its inclusion as an agenda item at the World-Wide Infantry Conference held at the United States Army Infantry Center last December.

Ironically, the important breakthroughs which we have achieved in weapons and equipment, and which magnify our combat capabilities, also reduce our capabilities by contributing to the softening and deterioration of the soldier.

Our problem becomes even more significant when we consider some of the factors which favorably influence the physical condition of the Soviet soldier. In the first place, the Russian people provide a broad base of physically hardened citizens for the military service. In Russia it is considered a patriotic obligation to be physically fit. Everyone is expected to develop and maintain maximum strength, endurance and agility. Physical education is an instrument of national policy and is a required subject in all Soviet schools. Twenty million Russian men and women belong to athletic clubs and great emphasis is placed on physical accomplishments. Equally important, the Soviet citizenry is exposed to the deteriorating effects of few mechanical luxuries. Their manner of daily living reinforces rather than impairs physical fitness. Transportation is limited—consequently, Ivan walks more. Lacking labor-saving devices, he does more manual labor.

As a result, the Soviet draftee enters the Army better equipped physically for rigorous training. And while he is in the service he is kept physically fit. Soviet doctrine stresses that the outcome of an engagement will always be decided by men "strong in spirit and physically tough." The Soviet soldier is given little opportunity to become soft.

Many commanders, particularly Infantry commanders, recognize that the combat mission of the Army requires superb physical conditioning, not only in the combat elements but in support and service elements as well. They recognize also that such conditioning cannot be accomplished overnight or after the curtain goes up. No longer can we count on allies to buy us time to train or to get into shape. In this nuclear era we can expect to find ourselves in combat immediately after the enemy launches an attack—on this country or on one of our Free-World allies. There will be no time to develop physical endurance en route to the battle area. Yet, the kind of combat we visualize today will require rapid movement and deep patrolling over great distances, and vigorous fighting against superior numbers and under the most difficult conditions. While the Infantry is becoming increasingly mechanized, there is not a diminishing, but rather an increasing demand for higher physical standards. Protected carriers and aircraft may not always be available or usable for movement over the battlefield. To avoid destruction and to conduct offensive operations we frequently will have to move on foot over greater distances and at greater speeds than in the past. And we will *fight* on foot. If we are to sur-

Instructors check the triple standing broad jump, another event of the experimental test.

vive and win on the modern battlefield we must get into top physical condition now and stay in condition.

Commanders who recognize the urgent need for physically hardened soldiers are alarmed by what seems to be a spreading deemphasis on physical fitness. While it is difficult to fix a point and say exactly where stress on fitness is being subordinated or why, it is not hard to find evidence of declining standards. Perhaps the decline can be attributed to neglect of our physical training program, to a lack of decisive emphasis at some command levels or to a shortage of officers with sufficient experience to develop really effective fitness programs.

Prior to the seminar at Fort Benning, two field surveys were conducted to determine what units and individual officers felt about the effectiveness of our present physical training. Questionnaires were sent to all divisions—Infantry, Airborne and Armor—and to Army headquarters. Seventy percent of the units questioned indicated that our present programs are insufficient for mobilization purposes. Sixty percent expressed a need for the allotment of more time to physical training. Questionnaires returned by more than 1700 individual officers—warrant officer through colonel — reflected almost identical viewpoints as those received from units. Most of these same officers, however, felt they would have from three to six months to get into shape between mobilization and actual combat. The recent situation in which troops were airlifted to Lebanon within a few days should indicate that we are not likely to have months or even weeks in which to shape up.

Speakers at the seminar pinpointed additional evidence of the need for more emphasis on physical conditioning. Capt Bruce Wallace, Chairman of the Fort Benning Ranger Committee in the Infantry School's Ranger Department, reported that many young officers and noncommissioned officers feel that the Army should provide the necessary conditioning—that little or no self-generated effort should be necessary. He pointed out that more than 20 percent of the men who apply for Ranger training fail to meet minimum physical requirements—"a sad commentary when you consider that these men are supposedly selected individuals, the cream of the American Army."

A similar situation was reported by Lt Col Guy E. Campbell, Chairman of the Basic Airborne Training Committee. Despite minimum standards, 14 percent of all volunteers fail the pre-Airborne physical fitness test. And

Grenade throw.

many more must be washed out after starting the course because they fail in their physical training or suffer minor, athletic-type injuries during physical conditioning periods.

The high rejection and failure rate is significant because most of the volunteers are highly motivated individuals and in general are in better physical condition than the average soldier.

Working in committees, the seminar developed a number of conclusions and recommendations. Some of these were of major significance to the civilian population, particularly to educators. We will mention here only those which are related to or apply specifically to the military.

The seminar recognized that physical fitness is essential to the Army. It recommended that physical fitness be given positive command emphasis at all levels of command. It stressed that physical training must have the same emphasis as is given to other training subjects. And it called on company and battle group commanders to evaluate continuously the physical proficiency of their commands to insure that their troops are

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LT COL JAMES E. REILLY received an Infantry commission upon graduation from New York University in 1936. During World War II he served as company commander with the 18th Infantry, 1st Infantry Division and as Chemical Warfare Officer of the 13th Airborne Division in France and Germany. In 1952, after duty in Germany with the Operations Section of Headquarters, Seventh U. S. Army, he commanded a battalion in the 505th Airborne Infantry Regiment of the 82d Airborne Division. In 1955, Colonel Reilly became Advisory Team Chief with the III Corps of the Chinese Nationalist Army. He is now Chairman of the Infantry School's Combat Conditioning Committee.

CAPT ROBERT M. GARRISON was commissioned in the Infantry upon graduation from Norwich University in 1952. After attending the Associate Infantry Officer, Ranger and Airborne Courses at Fort Benning, he was assigned to the 11th Airborne Division. He then served in Korea and on Okinawa before returning to the Infantry School as an instructor in the Airborne-Air Mobility Department. He is now attending the Advanced Infantry Officer Course.

always ready for and capable of participation in combat operations.

The World-Wide Infantry Conference focused further attention on the fitness problem. Speaking from the Conference floor, Col John T. Corley, Director of the Ranger Department, aired the deficiencies of our physical training program, and a Conference committee, headed by Maj Gen Sidney C. Wooten, drafted specific resolutions which were designed to provide sound corrective action. These resolutions, unanimously endorsed by the Conference, gave direction and force to the Infantry's physical combat-proficiency efforts. The Conference resolved:

That all personnel of Infantry combat units establish a training objective of 30 minutes of physical conditioning exercises each duty day.

That a new test, consisting of specific physical combat skills, be devised to measure more accurately the Infantryman's physical fitness.

That all Infantrymen be tested annually until they reach their forty-first birthday.

That results of physical fitness tests be made a matter of permanent record on DA Forms 20 and 66.

That a score of 200 points on the present physical fitness test be accepted as the minimum standard of fitness, until the new test is developed and implemented.

Such a physical proficiency test is now being developed at Fort Benning. An experimental battery of tests utilizing the basic combat skills of climbing, crawling, jumping, throwing and running, was tested in January of this year by selected units of the 2d Infantry Division. The experimental test consisted of a horizontal ladder climb, a 40-yard crawl, a triple standing broad jump, a grenade throw and a one-mile run. The results are now being analyzed.

In general, the test events were approved by the trainees. They felt that the combat-related tasks which require all-round development are superior to present physical fitness test events.

The physical fitness problem has been recognized and exposed. We know what we must accomplish and we know how to do it. But merely making resolutions, introducing a new physical fitness program and developing a new proficiency test is not going to solve the problem. Fitness is a job for every unit, every commander and every Infantryman. Only when the individual soldier is physically ready to fight any kind of war, in any kind of terrain, climate or weather, will we have faced the problem and solved it. Fitness is an Army-wide concern, but a command and individual responsibility.

Survival Training

By Lt Earl J. Cantrelle

SPECIAL missions which take Rangers deep behind enemy lines may often require living off the land for extended periods of time. The Ranger Department, realizing the need for survival training, incorporated it into the Ranger Course some years ago.

It has been found, however, that the need for such training is not limited to men who perform special missions—as our experience in Korea, where units or parts of units were frequently cut off behind enemy lines, makes amply clear. With this in mind, the Department has established a two-hour course entitled, "Survival Techniques," which is presented to Basic Infantry Officer Course and Officer Candidate School students at Fort Benning. The course is not designed to make experts of the students. However, it does effectively acquaint them with the basic techniques of survival. Emphasis is placed on the "will to survive."

After a general orientation, the class is divided into three groups. The groups are rotated among stations at which various aspects of land survival are presented. At station one, several types of plant and animal life are discussed, and the methods of procuring them are demonstrated. During the discussion the instructor stresses the importance of being able to determine what foods are edible in various areas and of acquiring the skill to obtain them. At station two, traps and snares are demonstrated and their uses discussed. Here the students learn that to trap successfully they must decide what to trap, and what the habits and foods of the animal are, and then must bait and set their traps accordingly. Finally, at station three, the basic techniques of building shelters and fires are explained. The instructor demonstrates the use of fires for keeping dry and warm, cooking, purifying water and signaling, and emphasizes that survival may depend on a man's ability to provide fire and shelter when he needs it.

"Survival Techniques" is a significant addition to the BIOC and OCS programs of instruction. Students will be given a basic working knowledge of the survival techniques and, most important, in future assignments will be able to train other men in survival.

Men without weapons in modern war are helpless, but weapons without men are nothing.

GENERAL OMAR N. BRADLEY

Carrier Signals

By Capt Gordon E. Williams

Here is a suggested set of flag signals which would give the leader of small Infantry units a visual means of controlling his personnel carriers in mounted operations.

Now that the personnel carrier is such a major factor in our combat operations we are faced with the problem of controlling the movements of these vehicles on the battlefield. As foot soldiers we have tended to rely on our familiar arm-and-hand signals. But these signals simply are not suitable for use with the carrier. Frequently they cannot be seen, let alone understood and executed.

A set of signal flags—red, green and orange—is provided as TOE equipment with each carrier. However, we have not been using them, apparently because we don't know how to do so. What we need is a system of standardized flag signals.

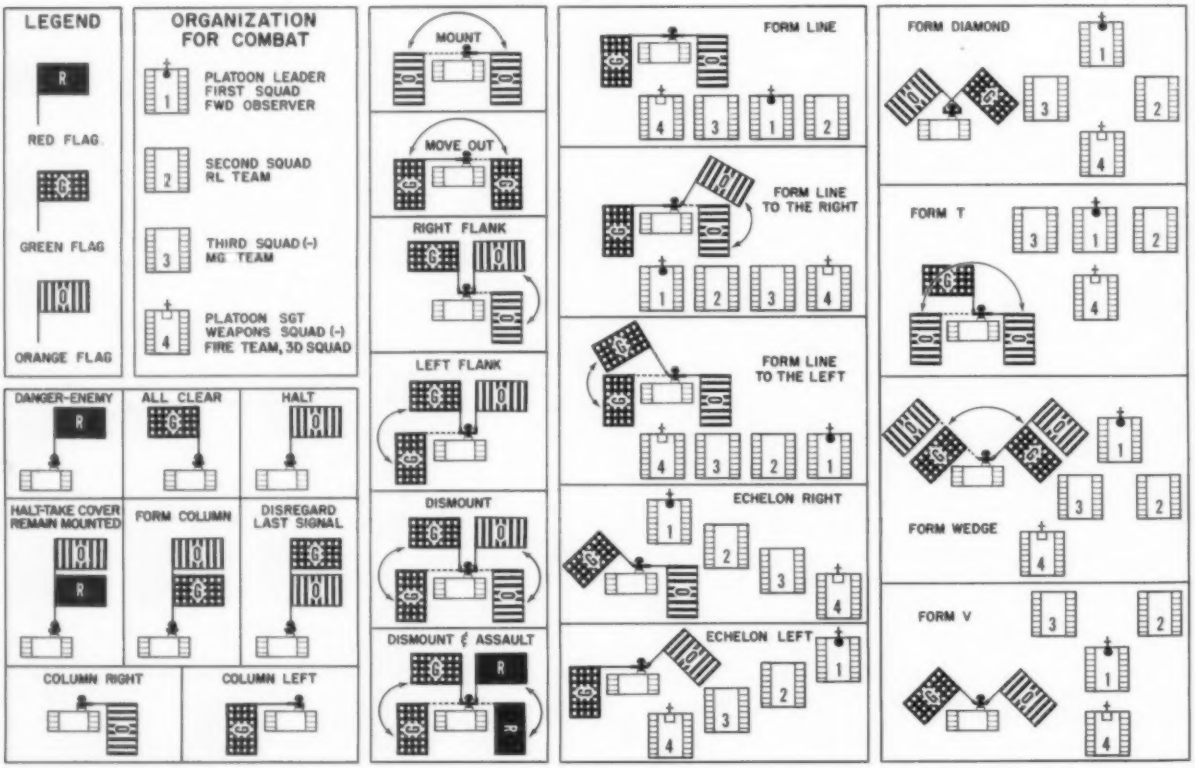
We suggest the system illustrated below. In this system the green flag normally would be held in the left hand, and the orange and red flags in the right hand. In a few cases, two flags would be held in one hand.

The platoon leader's vehicle would be the lead vehicle. Signals would be given from the turret of the vehicle by the platoon leader, and repeated by the other vehicle commanders to insure that all carriers to the flanks or rear received them. The vehicle commanders would hold the signal until the platoon leader dropped his flags, at which time the command would be executed.

The organization illustrated is provided only as a guide. It is based on the fact that the rifle platoon normally will receive four carriers for mounted operations. Modifications can easily be made for other circumstances.

If such a system is adopted, the signals should be reproduced in color and displayed in the carrier turret.

Proposed Flag Signals.



By Gen Matthew B. Ridgway

Any reasonable person who considers the truth and fundamental principles rather than "get-rich-quick" schemes must conclude that ground forces have the ultimately decisive role in warfare. And any young man who seeks to serve his country will find that leading the heroic ground fighter offers the best of all rewards.

The Army's Basic Role

It is often disturbing to me to note the extent to which the basic role of our Army fails of adequate appreciation in the public mind. There are many reasons, but perhaps the most influential is the same reason which contributes to much confusion of thought, even among thinking people, in the attempt to reach sound conclusions regarding the great international problems which confront us today. This reason, it seems to me, is that the more complex the problem, the more readily people seem to grasp at every proposed short cut for its solution. The fundamental truths and principles on which and by which any sound solution must rest are either forgotten or cast aside, and the appeals of "get-rich-quick" schemes whereby great objectives can be attained at low cost and with little effort lull them into forgetfulness of the harsh facts of life.

There are simple truths and fundamental principles which must enter into any honest analysis of these problems, if there is to be reasonable hope of enduring solutions. If in our thinking we recognize these truths and apply these principles, we shall have a far greater chance of working solutions than if we ignore either or both.

Let me state a few of these truths as I see them.

First, man has yet to conquer space. He may soon make the first few venturesome flights beyond our atmosphere, but he must quickly return and get his feet on solid earth again. Nor for more than brief moments, relatively speaking, can he sustain himself away from land. The bases of naval and air power are all established on land, and neither navies nor air forces can exist without them.

Second, it therefore follows, as clearly as night does day, that the basic objective of war is the control of land areas and of the people who live on them.

Third, since manned aircraft have but two alternatives — to bluff or to bomb — and since naval ships, whether surface or sub-surface, are limited to the waters of the earth and cannot penetrate continental land masses, it follows with irrefutable logic that the final decisive factor in establishing and maintaining control of land areas and their inhabitants is the force that can be brought to bear by ground forces. They are confronted with no such narrow choice of means. They cannot be stopped by any terrestrial barrier, nor, with proper training, armament, supply and leadership, can they be stopped by any human obstacles, provided they receive the full support of the air and sea arms, and provided *the will to win* dominates the whole military establishment and the civilian leaders who control it.

These truths — and, for my part, I cannot see how any reasonable person can challenge them as truths — point to but one conclusion: ground forces have the ultimately decisive

Gen Matthew B. Ridgway, now retired, was Army Chief of Staff until 1955. Prior to that assignment he was Commander of SHAPE. During the Korean conflict he commanded the Eighth U. S. Army and later the United Nations Command.

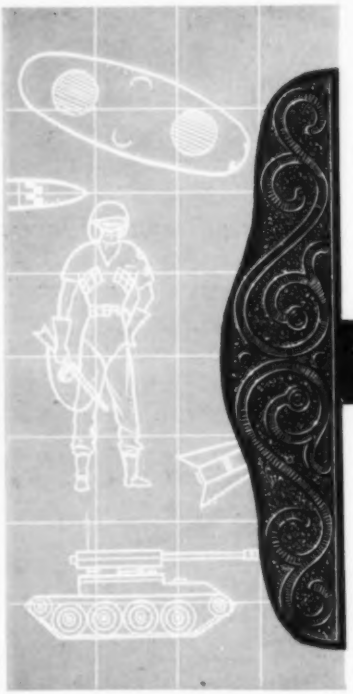
role. However complete the mastery of the seas achieved by naval forces, however great the devastation inflicted on land areas by air forces, inevitably there will come a time when some trained, disciplined, well-led force must move in on the ground for the final kill, and then must remain until the basic requirements of humanity are met and orderly processes of social and political organizations restored to viable levels.

From all of this, from the ultimately decisive role of ground forces, emerges the heroic figure of the individual fighting man on the ground. He is not just the Infantryman, though that name symbolizes the whole ground fighting force. He is the Infantryman, the tanker, the artilleryman, the communications man, the engineer, the medico and the supply man. Of course, his inseparable and essential colleagues in the air, and on and under the sea, must play their full and indispensable roles.

But in the courage, skill, stamina and indomitable spirit of this ground fighter, symbolized by the word "Infantryman," is the distillation through all the ages of the final arbiter of war — not machines but men, not missiles but muscles, not money but mind and spirit.

With full appreciation of the opportunities open in all of the other military services, I believe there is no finer field for the exercise of man's finest qualities of leadership than among those men who fight on the ground.

This is why I think our Army, in spite of all obstacles, frustrations and at times severe hardships, offers our youth as fine a career as any on earth — a career of utmost purposefulness in the service of others — his countrymen and their ideals. And this is why, when his career is ended, and his fight is over, he will have attained the best of all rewards — the admiration and respect of his associates. Kipling's words provide an apt conclusion — "And what is more, you'll be a man, my son."



WHY DON'T WE?

Perhaps you have an idea for some item or technique that would help the Infantry. Send it to the Editor of INFANTRY. *If it is published you will receive a free one-year subscription.*

Why Don't We . . .

. . . develop a simple range finder for the recoilless rifle? The success or failure of our recoilless rifles depends upon first-round hits. Assuming that the rifle is properly boresighted and manned by a proficient gun crew, the primary consideration in obtaining a first-round hit still depends predominantly upon the human element of determining the exact range from gun to target. Why don't we develop a small, accurate range finder similar to that found in the modern camera? It could be carried by the squad leader in much the same manner as a pair of binoculars.

Maj William H. Guinn, Jr.

. . . speed up notification of promotion? Promotion is one of the most important factors influencing the morale of the individual and prompt notification is extremely desirable.

Since it takes up to seven days for DA special orders to reach an installation, officers, in many cases, see the announcement of their promotion in one of the service publications days before receiving official notification.

Why don't we prepare a standard message of congratulation, in the name of the Secretary of the Army or the Army Chief of Staff, with a space left blank for the name, promotion order and date, and the date of rank of the officer being promoted, and distribute it to all installations and major headquarters. TAG need only TWX the installation the name of the person promoted, the promotion order number and date, and the new date of rank. The installation would then complete and dispatch the prepared message to the individual concerned. This plan would insure prompt notification of the officer but, perhaps even more important, would add a personal note to an important landmark in an officer's career.

Capt Alfred W. Matthews

Continued on page 71

A Tent — for the Modern Battlefield?

By Lt Col Gus W. Schlitzkus

This new all-purpose tent may be an unexpected answer to our need for a light, highly mobile shelter for battle group and company command posts and other combat activities.

WHAT! A tent on the modern battlefield? In mobile nuclear warfare?

That's right! We still need a tent. Specifically, we need a lightweight, insulated, roomy and easily pitched tent—one that can be quickly and compactly stowed, that can be carried by the battle group and the company anywhere they go.

To many Infantrymen this suggestion may appear ridiculous. Our doctrine calls for highly mobile Infantry units which sweep rapidly over the battlefield in personnel carriers and ground-hugging aircraft. We are preparing to face unprecedented nuclear and non-nuclear firepower. To recommend that we use a tent under such conditions may seem preposterous. But is it?

In any kind of warfare the Infantryman needs some form of shelter. Commanders and staffs must have a dependable, readily available place in which to plan, work and issue orders—night or day, in any kind of weather or climate. At times, suitable shelter can be found or made on the

The new tent can be carried on or in the carrier and other vehicles, with no interference to normal loads.

battlefield, but more frequently it must be provided.

Although much attention has been given the development of weapons and tactics for fighting on the future battlefield, it is apparent that similar effort has not been devoted to the development of control and administrative facilities which will keep pace with fast-moving combat units.

Experiments have been made with wheeled vans. The battle group, in fact, is now equipped with a makeshift shop van for use as a command post. While this is a step in the right direction, vans are bulky and cumbersome. Their value in combat may be exceeded by the problems they present. Certainly vans could not keep up with track-mounted Infantry units in fast-moving situations, particularly in areas with limited road nets. Also, in helicopterborne operations the van must be left behind.

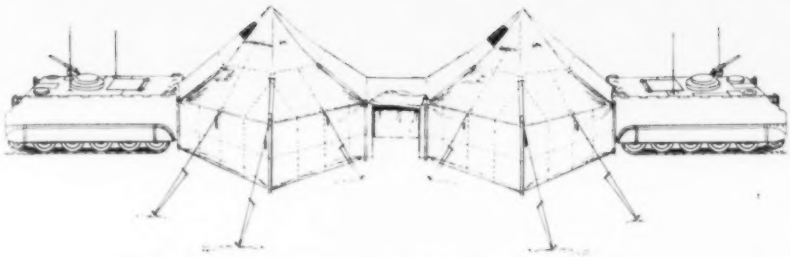
Other experiments have been made with portable "boxes" which can be mounted on trucks, trailers and tracks or lifted by helicopter. These specially designed and equipped "rooms" are flexible and have many other desirable characteristics, but again they are bulky. They present logistical problems and, most important, they require for their movement vehicles or aircraft which may not always be available.

Some Infantrymen feel that the tracked personnel carrier is the best answer to the problem. Significantly, the recent World-Wide Infantry Conference recommended that tracked carriers of the T113 type be issued as mobile command posts for both the battle group and the company. Carriers are ideal for situations in which the commander must make decisions and issue fragmentary orders on the move. But, for detailed planning and staff work the space provided by existing carriers is quite limited, and future carriers may be even smaller. Furthermore, the carrier is an expensive item. It doesn't seem likely that carriers will be available in sufficient numbers to provide tracked office space for all members of staff sections. Obviously, we must supplement the carrier with some other means. A highly practical means is a tent. But it can't be just any kind of tent.

The heavy, cumbersome canvas now organic to the battle group definitely is not the answer. A satisfactory tent must be suitable for use in all climates. It must be light and permit rapid erection and striking. The U. S. Army Infantry Board and the U. S. Army Infantry School believe that the 10-man arctic tent, with a number of important modifications, fills this need.

The arctic tent has been standard issue for cold regions since 1952. It has a number of unique features. Although it can withstand 60-mile-per-hour winds and a heavy load of snow, its only rigid support is a magnesium pole nine feet long which telescopes to a length of 57 inches. All other support is furnished by cotton lines anchored to aluminum pins. The skin is a nine-ounce cotton sateen fabric, lined with fire-resistant white-cotton sheeting. This lightweight liner performs a triple function. It provides insulation, prevents frost from falling on the occupants and makes the interior brighter. Four ventilators near the peak have inside ducts which may be closed by tie cords. These vents and two doors are provided with insect screens. Six-sided and pyramidal in shape, the arctic tent incloses 200 square feet of

In five minutes erection is well under way.



Tents can be joined in tandem with a single blackout vestibule.

floor space—enough room for 10 men in sleeping bags or eight men on cots. Yet for all this roominess, it folds into a compact bundle 57 inches by 30 inches by 7 inches, and weighs only 76 pounds.

The many desirable characteristics of this shelter led the Infantry Board and the Infantry School to recommend, in 1957, that it be modified and tested as *the* small general purpose tent for the Army. However, the Quartermaster Research and Engineering Command had been interested in a variety of experimental tents of original design to fill this requirement since 1953. Five new tents were tested, each of which was designed around a different method or principle of support, or a new fabric.

However, none of these tents met military requirements for one or more reasons. Either they were too heavy, too fragile, too small or too expensive. While this testing was going on, the Quartermaster decided to modify one arctic tent along the lines previously suggested, and requested that the Infantry Board make simple performance observations. The observations showed that the insulation qualities of the tent were applicable to hot climates as well as to the arctic. When the tent was pitched in the direct sunlight, the inside temperature registered lower than the outside temperature in the shade until the mercury reached 90 degrees. At higher temperatures the readings inside the tent were higher than in the shade, but by only a few degrees. Informed of these results, the Quartermaster made two more tents available and a full service test was initiated.

Five major modifications were made to the arctic tent for this test. The sidewalls were raised two feet and the screen doors were lengthened the same amount. Six telescoping aluminum sidewall poles and four door poles of the same design were added. An aluminum center pole, capable of telescoping from 10½ feet to 43 inches was substituted for the magnesium pole. An additional insect-screened ventilator was cut near the apex, and a blackout vestibule was added which doubles as a cover for the rolled tent.

The tent is easily attached to the carrier. There is no light leak.

After ten minutes equipment is moved into the tent without interrupting operations within the carrier.

During the test this modified tent was compared with the three small tents now used by the battle group—the command-post tent M1945, and the large and small wall tents. In every respect the modified arctic tent proved to be superior, and without any additional major modification it satisfied every military requirement specified for the general purpose small tent.

This new tent is completely compatible with mobile warfare. In spite of its increased height and other added features, it weighs only 140 pounds, about half the weight of the 272 pound M1945 tent. It will fold

into a bundle only 44 inches by 25 inches by 14 inches. Split into two loads, it can be jumped in general purpose bags by parachutists. It can be pitched or struck quite easily by three men in 20 minutes—in daylight and under ideal conditions this time can be considerably reduced. And it has an extremely high usable-space to packed-bulk ratio: 200 square feet to 8 cubic feet. The small wall tent by comparison has a ratio of 138 square feet to 8 cubic feet. As an example of what this space means to the battle group, the 10 personnel of the S2 and S3 sections, with their working gear set up, occupy less than one half the floorspace. Ample room is left for the men who operate in and out of this control center. For additional space, any number of tents can be easily linked in tandem.

All of these characteristics—low weight, low bulk, speed of erection and striking, and ample space—add up to a tent that matches the Infantryman for versatility. It is suited to any climate. It can be transported by man or animal carry, or free-dropped by aircraft. It can fit into the back seat of a ¼-ton truck, ride the top of a tracked carrier, or fill the passenger seat of a light helicopter.

While it was tested specifically for use as a command post, fire direction center and aid station, it can have many other uses. During the testing process commanders of Infantry, Artillery and Medical units were asked for comment. Without exception those who saw it were enthusiastic about it and claimed it to be suitable for *all* their tentage needs. They particularly liked the light-reflecting liner, the full insect protection and the provision for ventilation while blacked out.

Applications for this tentage are limited only by the imagination of the commander. There is no reason, for instance, why this tent could not be issued to the rifle company. In addition to serving the command post, it could also function as a kitchen and feeding tent, a warming tent and even as a maintenance tent—all these uses are made possible by its lightness and simplicity. Giving such a tent to the rifle company could have special significance in dispersed operations of the future.

Some Infantrymen will claim that the tent is unsuitable for the modern battlefield because it offers no protection against enemy fire or the effects of nuclear weapons. The point is that we do not look for this kind of protection in a tent any more than we would expect to find it in vans or similar alternatives. The carrier, since it normally will be attached to the tent in mobile operations, will help to provide such protection. Or, whenever possible, we will continue to use our best form of protection—a hole in the ground.

The modified arctic tent appears to be the best solution to the problem of providing sheltered working space for the command post and other activities in the battle group and the company. Coupled with the tracked carrier, it gives us an ideal arrangement for mobile operations. Even when the Infantry takes to the air in helicopters or zero-ground-pressure vehicles of the future, the tent can still go along. This new all-purpose shelter is indeed a necessity for modern combat.

LT COL GUS W. SCHLITZKUS was commissioned in the Infantry in 1935. During World War II he served in the Pacific as a company commander and later as battalion executive officer in the 35th Infantry, 25th Infantry Division. In 1950 he took command of the Military Sub-Post at Wildflecken, Germany and, later, the German Labor Supervision Center in Wurzburg. After a tour of duty with the 29th Infantry Regiment at Fort Benning, he became a military advisor to the Vietnamese Army. From 1956 until his recent retirement from active duty, he served with the U. S. Army Infantry Board at Fort Benning in the Field Equipment and Special Projects Department.

This tent has many uses. Note the blackout vestibule.

TRAINFIRE II: Part Two

This additional material on the Trainfire II program describes the ranges required and discusses the conduct of instruction. It shows how this new squad training can be implemented now.

By Maj Edward J. Collins

IN THE last issue of *Infantry*, we discussed Trainfire II, the projected combat training program for the rifle squad. That discussion covered the basic principles and goals of Trainfire II and paved the way for further discussion.

In this issue we shall consider the ranges and training areas required for this instruction, and we shall take a close look at how the training is conducted.

Four ranges are required for Trainfire II instruction: Technique of Rifle Fire, Defense Training, Assault Fire and Attack Training ranges. These ranges duplicate, insofar as possible, situations and conditions the rifle squad is likely to encounter on the battlefield. Combat realism is injected by extensive use of small-arms and artillery simulators[1] and by pop-up targets and other target devices, which are so arranged that they simulate enemy movement or other actions. These devices require the trainee rifleman to employ the same countermeasures

[1] These simulators were discussed in "Trainfire II," Oct-Dec 1958 issue of *Infantry*, pp. 24-25.

he would use against an actual enemy.

In addition to the ranges, special training areas are used to give the rifleman further direct experience in applying the instruction he receives.

While proper ranges and other facilities are essential for this training, the real core of the Trainfire II program is the training itself and the manner in which it is conducted. To insure that the instruction is presented uniformly and effectively, a specific lesson plan for each period is included as a part of the program.

Period 1

Trainfire II instruction begins with a short orientation on the role of the rifle squad in combat and a discussion of its organization and equipment. At this time also, the course is outlined briefly so that every individual will have a clear understanding of the nature and purpose of the instruction he will receive (Figure 1).

The training unit is then divided into two groups, Group I and Group II, and the men in each group are arranged into consecutively numbered eight-man squads.[2] Since one of the important objectives of Trainfire II is to teach teamwork, the trainee remains throughout the course with the squad and group to which he is initially assigned. On the other hand, versatility is also required. To achieve this, positions within the squad are rotated.

After the orientation the two groups separate. Group I receives training in combat formations and Group II gets instruction in sound commands and arm-and-hand signals. As indicated in Figure 1, the two groups then change over so that both groups receive identical instruction, although in reverse sequence. Cadre teams are used to demonstrate both the proper formations and signals, following which the trainee squads are given practical work.

Period 2 and 3

In Period 2, Group I receives tactical training for the squad in the defense while Group II gets Part I of technique of rifle fire. In the middle of the period the two groups rotate. The squad in defense instruction includes the defense mission, defense order, SOPs for movement into position, and sector of fire for the squad, fire team and individual. Also covered are occupation of the position, work priority, security and chain of command.

Part I of technique of rifle fire teaches the distribution and concentration of fire and provides specific experience in responding to fire commands. This instruction is given in an area near the Technique of Fire Range. The group then moves to the range for its first live firing.

At the beginning of Period 3, Group I receives tactical training for the squad in the attack. This includes the attack mission and order, attack terminology, sequence of actions in the attack, SOPs for fire and maneuver, and consolidation and reorganization on the objective. A special training area is employed in which the trainee squads get practical experience in the attack. At the same time, Group II is given Part II of technique of rifle fire. As in Part I, preliminary instruction is given near the range and is then followed by live firing. Stress is placed on distribution of fire on a target deployed in width and depth, concentration of fire on point and split targets, and fire and maneuver. Again, at the end of two hours the groups rotate.

Technique of Rifle Fire Range

The Technique of Rifle Fire Range actually consists of two identical subranges (Figure 2). This arrangement permits squads operating on one subrange during Period 2 to be shifted to the other during Period 3, so that the second exercise will not be a simple duplication of the first.

Ideally, this range is located in rolling or moderately hilly terrain with both the firing line and the target area on high ground and a depression intervening. The "plunging" fire which results aids in the observation and adjustment of fire. Also, since maximum visibility and

[2] Throughout Trainfire II training, the squad leader and the two team leaders, who complete the 11-man squad, are cadremen.

Figure 1. Trainfire II Training Program.

TRAINFIRE II TRAINING PROGRAM

Period 1 (2 hours)		
All	Orientation, Formations, Means of Control (20 min.)	
Group I	Combat Formations	Groups rotate after 45 min.
Group II	Means of Control	
Period 2 (4 hours)		
Group I	Tactical Training—Squad in Defense	Groups rotate after 2 hours
Group II	Technique of Rifle Fire, Part I	
Period 3 (4 hours)		
Group I	Tactical Training—Squad in Attack	Groups rotate after 2 hours
Group II	Technique of Rifle Fire, Part II	
Period 4 (8 hours)		
Group I	Live Firing—Squad in Defense	Groups rotate after 4 hours
Group II		
Sub-Group Alpha	Reorganization, Consolidation	Groups rotate after 2 hours
Sub-Group Bravo	Technique of Assault Fire	
Period 5 (8 hours)		
Group I	Live Firing—Squad in Attack	Groups rotate after 4 hours
Group II	Squad in Semi-Independent Action	
Period 6 (4 hours)		
All	Squad in Independent Action, Blank-Firing Exercise	
Total hours 30		

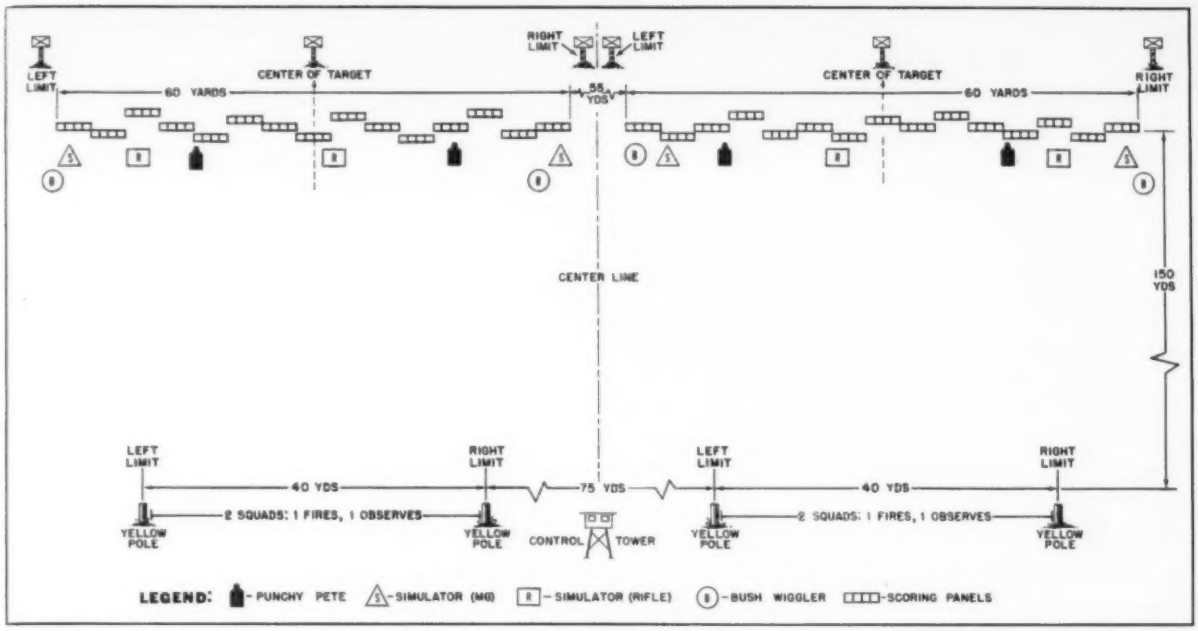


Figure 2. Technique of Rifle Fire Range.

unobstructed fields of fire to the target panels are necessary, this arrangement eliminates excessive removal of natural growth and keeps the target area from being too obvious.

However, the limits of the camouflaged targets are clearly marked *center, left* and *right*. Immediately prior to their firing on this range, the squads on the firing line are checked to assure that all riflemen are proficient in proper searching and target detection techniques. To accomplish this, the pop-up targets are momentarily exposed and the riflemen are required to report this information and to indicate to cadre squad leaders how they would fire. The simulators are then activated and the firing exercise begins. Squad and team leaders designate the target, using the man-made limit markers as the target limits. The firing consists of two 10-minute periods during which each man fires two clips in each period (a total of 32 rounds). The hits of each squad, which are registered on automatic counters, are scored separately. The scores are announced and the firing is critiqued. The points stressed in the critique are target detection, distribution of fire, rate of fire, the Search-Fire-Check technique, shifting of fires and fire effectiveness (scores). The next order, which has been observing and giving practice fire commands during this firing, moves to the firing line and the process is repeated.

For the advanced technique of rifle fire exercises in Period 3, squads formerly on one sub-range move to the other. The range itself is set up exactly as it was for Period 2, except that the target-limit and center-of-target markers are removed. Consequently, the location of the enemy must be determined from the sounds and movements of the simulators and target devices. Full proficiency in target detection, target designation and application of fire is required. Here again, each rifleman fires 32 rounds.

Period 4

In Period 4, the squads of Group I participate in a live-firing defense exercise on the Defense Training Range. Concurrently, they receive instruction in a target detection area. For this period only, Group II is further divided into Alpha and Bravo sub-groups. The Alpha portion is given a conference and a practical exercise on reorganization and consolidation on the objective and the Bravo portion receives a conference and demonstration on the technique of assault fire. The assault-fire demonstration is followed by live firing on the Assault Fire Range. After two hours the Alpha and Bravo sections rotate. After four hours Groups I and II change over and Group I is subdivided into Alpha and Bravo subgroups.

Defense Training Range

The Defense Training Range (Figure 3) is 300 yards deep but varies in width from at least 70 yards at the firing line to 150 yards at its outer edge. The riflemen of the trainee squads occupy two-man standing foxholes which are staggered to permit better observation and to prevent enfilading enemy fire from the flanks.

The range is located in a lightly wooded area containing grass, stumps and other natural camouflage. Rolling or moderately hilly terrain with an approach that would naturally channel an attack towards the squad em-

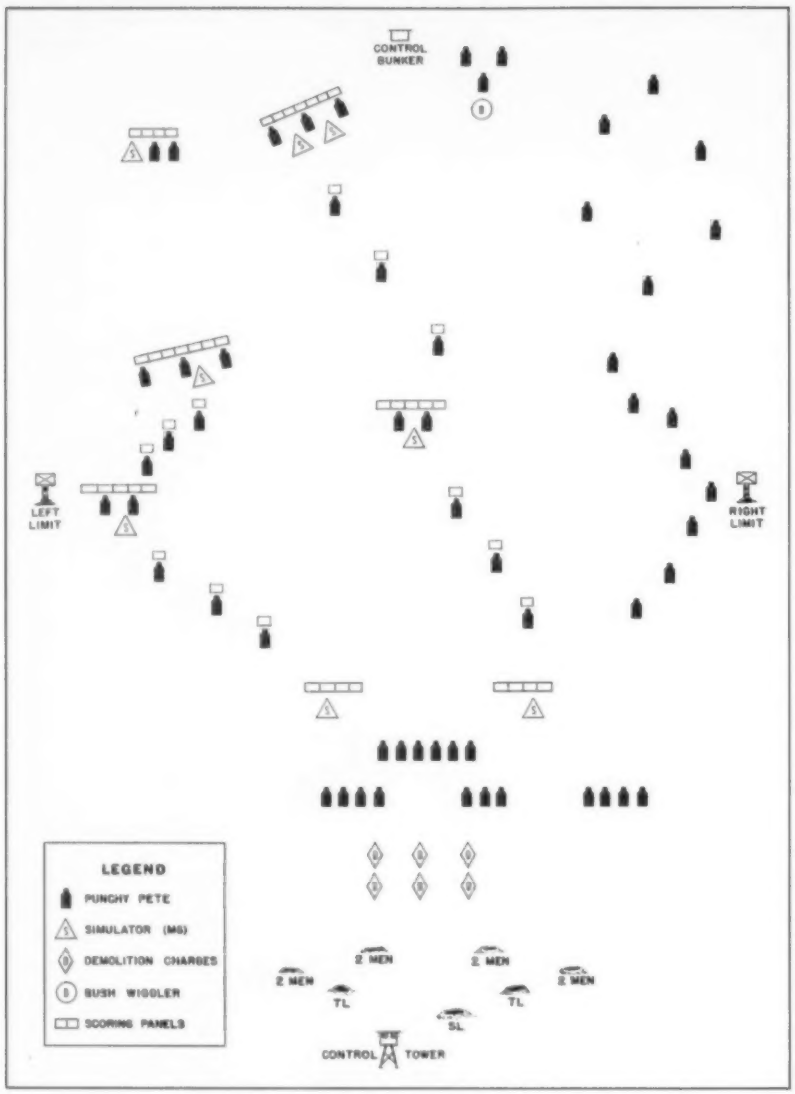


Figure 3. Defense Training Range.

placements is desirable. The location of targets and target clues should take advantage of the attack potentialities of the terrain.

Again, during this exercise, one squad fires while another observes and critiques. The firing exercise itself consists of 10-phase enemy "attack" on the defensive squad. The "attack" proceeds logically, with the use of simulated artillery support, target clues and appropriate enemy "maneuver." Each rifleman fires a total of 56 rounds.

Assault Fire Range

The Assault Fire Range consists simply of an open area approximately 90 yards wide and 100 yards deep, which rises slightly from the assault line to the objective. Engineer tape is laid across the rear of the range to indicate the assault line, and a similar tape is placed about 30 to 35 yards from the objective to indicate the point of change-over to the underarm firing position. In addition, the range is divided by tape into individual lanes, each of which is five yards wide. Each lane is indicated by a numbered marker and accommodates one rifleman. Three pop-up targets per lane are located on the objective. This arrangement permits two squads to fire at a time.

After demonstrations and dry runs, two squads form on the assault line, and, with bayonets fixed, advance in assault formation toward the objective, keeping to their assigned lanes and delivering assault fire upon the targets located on the objective. When they reach the second tape, they change over to the underarm firing position and complete the assault. A total of 96 rounds per rifleman is allotted for this firing.

Period 5

In this period the squads of Group I initially participate in a live-firing attack exercise on the Attack Training Range and Group II receives a conference and demonstration in tactical training for the squad in semi-independent offensive action. The attack-firing exercise tests the application of SOPs and techniques previously presented. Additional instruction in the target detection area is given concurrently.

The training in semi-independent action emphasizes techniques and procedures employed in situations when the squad is semi-isolated, is the point of an advance guard or performs flank security missions.

Attack Training Range

The Attack Training Range (Figure 4) is constructed to create a combat situation in which a rifle squad as part of a larger force attacks an enemy position. Since this instruction requires trainees to move in squad formations with loaded weapons, concessions to safety may be made by clearing away heavy vegetation.

After receiving a tactical orientation and the attack order, the participating squad moves to the line of departure. The actual attack is conducted in four phases. During Phase 1, the squad crosses the line of departure in an appropriate formation, moves through or around artillery fire and advances until it is stopped by fire from enemy security forces. Phase 2 consists of the destruction of the security troops by fire and ma-

neuver. Fleeing targets are fired on and the advance continues. In Phase 3, the squad receives machinegun fire from the enemy main battle position. Friendly artillery begins to fall on the enemy position as the squad again advances by fire and maneuver. Assault fire is delivered during Phase 4, and when the objective has been overrun, the squad reorganizes and consolidates. The problem is complete when the squad is in position and ready to repel a counterattack. The Attack Training Range accommodates one squad every 15 minutes. Each rifleman is allotted 40 rounds of ball ammunition.

Period 6

During this period the training unit is not divided into groups. All squads receive practical experience in semi-independent offensive action. Primarily, the squad learns to deploy and to deliver team fires in any direction. The instruction consists of an exercise which requires a thorough knowledge of relevant SOPs and allows maximum use of combat formations. The training area is composed of two blank-firing courses, designated as Problem Areas I and II. Conduct of the problem is the same in each area, except for minor modifications caused by variances in the terrain. Moving out from a march outpost, the squad encounters a series of enemy outposts, destroys them by fire and maneuver, and regroups to continue the advance. After each squad has completed the course, it is moved to a holding area and critiqued. Related concurrent training is conducted in the holding area both before and after squads run the problem.

Variations in Times and Ranges

The TOE rifle company, since it has only nine squads as compared to the 28 squads of the training-center rifle company, probably will complete range firing and practical exercises in less than the allotted time. This time should be used for additional practical training and live firing.

The ranges illustrated in this article are guides. To achieve the realism and flexibility which characterize Trainfire II training, the ranges should be tailored to the terrain. Local variations in terrain and tactical considerations will cause variations in the sequence of actions and in the number and distribution of targets and devices.

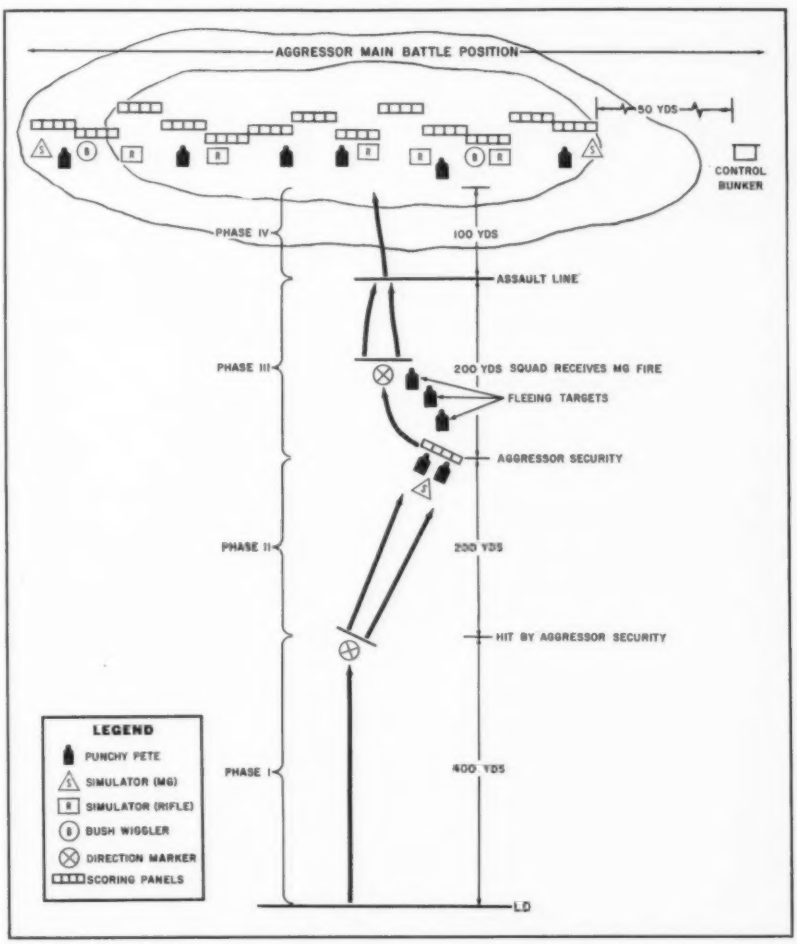
Advantages of the Program

As was previously pointed out, the aims of Trainfire II and those of the conventional training program prescribed by ATP 21–114 are the same. Much of the material itself is identical. Nevertheless, Trainfire II represents a major step forward because of its unique and effective methods of organization and presentation.

In the conventional training program, squad tactics and technique of rifle fire are not integrated. In Trainfire II, however, the integration of these subjects gives the rifleman a complete, consecutive picture of his battlefield responsibility. Also, in this new program the individual marksmanship training presented during Trainfire I is reviewed. Cover and concealment, camouflage and other subjects concerned with the movement of the individual are used and reemphasized throughout the Trainfire II program.

Breaking of the training unit into groups is economical since facilities and equipment are required for only

Figure 4. Attack Training Range. The direction markers orient the squad on the range. The arrows indicate the direction of the squad's movement.

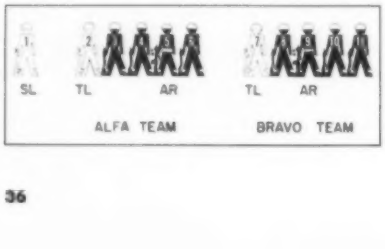


a part of the unit in any one element of the program. Moreover, the use of groups and sub-groups allows greater attention to detail and more careful supervision of training. Trainfire II is a well coordinated undertaking and full use is made of every instructional hour. Every member of a unit receives important related instruction at all times, even those who are waiting in holding areas for their turn to fire on one of the ranges.

In conventional training the rifleman fires 56 live rounds. In Trainfire II he fires 256 rounds. The value of this additional live firing cannot be exaggerated, especially in view of the realistic environment in which it occurs. The conventional program generally represents the enemy by abstract symbols and purely verbal situations. In Trainfire II, however, the enemy is realistically represented on the ranges and the squad must detect him and destroy him by maneuver and the application of team fires. Since field firing, without the tactical environment, is the only type of live firing used in conventional training, Trainfire II produces an unmatched degree of battle indoctrination. In short, Trainfire II teaches the rifleman to function as a more effective member of his squad with a minimum of leader direction and control.

In Trainfire II, frequent use is made of SOPs for fire and maneuver. On the one hand these SOPs insure uniformity of instruction, and on the other they give the rifleman definite, automatic procedures to be applied in a variety of battlefield situations, insuring that under the stress of fear and confusion he will react properly as a coordinated member of his squad.

Figure 5. Team Organization of the Rifle Squad. This chart (Chart 1) is employed in conjunction with a demonstration squad during Period 1.



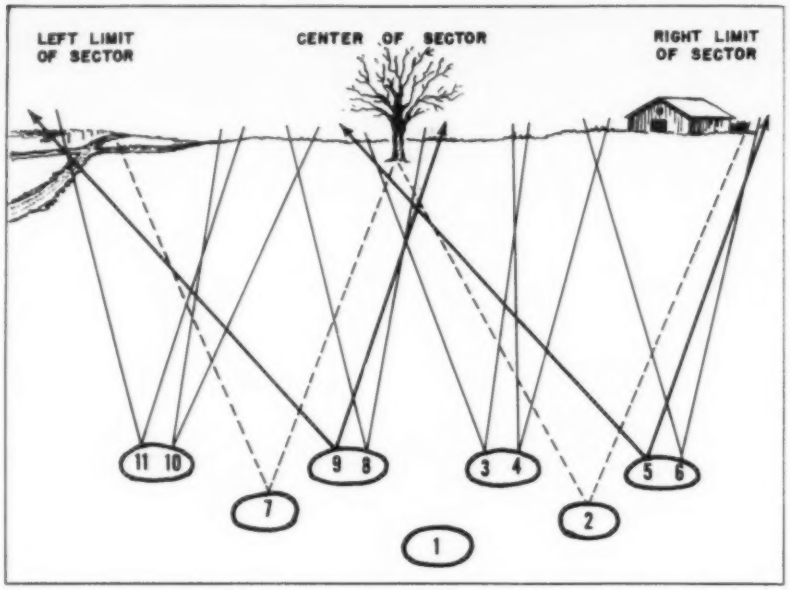


Figure 6. Squad in the Defense and Sectors of Fire. This chart (Chart 7) is used in Period 2. See Lesson Plan, page 38.

So that every rifleman who completes Trainfire II will have demonstrated proficiency in squad fire and maneuver, cadremen are employed as fire team and squad leaders in every exercise. Their expert leadership and guidance permit close control of trainee squads, contributing to safety and organization, and allowing proper supervision of each individual rifleman. In this way every rifleman who completes Trainfire II will have demonstrated full proficiency in squad fire and maneuver under a variety of conditions.

For clarity and impact, a number of training aids are employed in Trainfire II instructional periods. Among these are the charts illustrated in Figures 5 and 6. In addition, a "tilt-table," which can be raised to the near vertical for easy viewing, is used to give riflemen graphic instruction in formations, and in the conduct of the defense and the attack. The top of the tilt-table is a slapboard upon which magnetized figures, weapons and terrain features can be arranged to illustrate a wide variety of situations. The miniature figures used on the table match the colors on the helmets of the cadre demonstration squads, thereby creating an inescapable continuity between illustration and demonstration. The demonstration squads themselves contribute materially to the effectiveness of Trainfire II instruction.

Lesson Plans

Instructor lesson plans are an integral part of the program and establish the essential structure of Trainfire II. They have been designed to combine explicitness with real impact in presentation. The lesson plans are explicit so that every rifleman, wherever he receives Trainfire II instruction, will be given the same clear, authoritative information and practice. Consequently, short narratives are employed in the presentation of major points and a detailed time schedule governs the progress of every period. Subsidiary points are logically outlined, full use is made of SOPs, and instructors are required to have a thorough knowledge of all pertinent texts and other reference materials used in the lesson plans.

On the other hand, instructors are directed to use the lesson plan outlines as the basis for full discussion.

A representative lesson plan, derived from the Instructor's Guide,

Trainfire II, United States Army Infantry School, Fort Benning, Georgia, 1958, is reproduced on page 38. This lesson plan, for Part I of technique of rifle fire, covers two of the four hours of instruction presented during Period 2. It provides pertinent examples of Trainfire II instructional techniques and, in particular, gives some idea of how technique of rifle fire and squad tactical training are combined to form a consistent and more effective whole.

Proposed Revisions

Based primarily upon recommendations made by Fort Carson following the troop tests, the United States Army Infantry School has proposed to USCONARC several revisions in the Trainfire II test program. Troop tests recently completed at Fort Jackson generally substantiate these proposals. The suggested changes reduce the total hours in the Trainfire II Program from 30 to 26 by eliminating Period 6. In addition, live-firing battle drill is added to Period 4 without increasing the training time allotted to that period (Figure 7).

A Trainfire II program similar to the Infantry School's program is currently used at Fort Carson. The live-firing battle drill which is conducted by riflemen in their seventh week of basic training has proved not only feasible and safe, but is a realistic step in preparing the soldier to participate with maximum effectiveness in live-firing attack exercises. A Two-Man Battle Drill Range and a Fire Team Battle Drill Range are used for this instruction.

The Infantry School has further recommended to USCONARC that Trainfire II, with modifications, be presented during Infantry advanced individual training. This would replace the 32 hours of squad tactical training now prescribed in ATP 7–17.

The repetition of Trainfire II would have a number of advantages. It would provide live-firing experience during the second eight weeks of Infantry training. It would also permit the use of live mortar and machine-gun support during training exercises

TRAINFIRE II TRAINING PROGRAM
Proposed Revision

Period	Subject	Hours
1	Orientation, Formations and Means of Control	2
2	Tactical Training for Squad in the Defense; Technique of Rifle Fire, Part I	4
3	Tactical Training for Squad in the Attack; Technique of Rifle Fire, Part II	4
4	Live-Firing Exercise for Squad in the Defense; Live-Firing Battle Drill (Two-Man and Team); Tactical Training for Squad in Reorganization and Consolidation on the Objective; Technique of Assault Fire.	8
5	Live-Firing Exercise for Squad in the Attack; Tactical Training for Squad in Semi-Independent Action	8
	Total	26

Figure 7. Proposed Revision of the Trainfire II Training Program.

and would give the rifle trainee experience in working with and calling for friendly fires. The ranges employed in the basic Trainfire II program would be utilized in the advanced program, thus making fuller use of these facilities, and giving additional tactical experience with little increase in expense.

Furthermore, repeating Trainfire II during advanced individual training would continue and emphasize the valuable integration of technique of rifle fire and squad tactical training. In this phase selected trainee squad and team leaders would be employed —a distinct advantage since it would give leadership experience and assist in the detection and encouragement of leadership ability. Most important, this type of training would provide TOE units with replacements better trained for combat and ready to function as well-coordinated members of the rifle squad.

USCONARC has approved Fort Carson's request to eliminate the Close Combat Course as a POR requirement for riflemen completing Trainfire II.

The recent World-Wide Infantry Conference recommended that the Infiltration Course also be eliminated as a POR requirement when Trainfire II is implemented, since the individual will receive comparable battle indoctrination during this and subsequent tactical training.

Trainfire II Now

The troop tests have indicated that Trainfire II is not the least expensive way to train. Targets and other devices used to portray realistic enemy fire and maneuver are relatively expensive. One set of ranges at Fort Carson cost $68,000 (the pop-up target was the major item of expense). However, Trainfire II is *economical*, because it produces a rifle squad in which every man knows when, where and how to shoot whether his squad is attacking or defending.

Furthermore, the major advantages of Trainfire II are the concepts which lie behind it. Facilities, devices and equipment can be simplified or improvised, and expedients can be substituted on present ranges at little cost. An "austerity" version of the program can be implemented now.

Certainly the integration of tech-

MAJ EDWARD J. COLLINS, a member of the Trainfire Committee of the Infantry School's Weapons Department, was commissioned in 1942 after completing OCS at Fort Benning. In the following year he went to the European Theater of Operations where he served as a platoon leader and later as a company commander with the 320th Infantry Regiment, 35th Infantry Division. He left the service after the war but reenlisted in 1948 and in the same year was recalled to active duty as a commissioned officer. He then went to Germany as a company commander with the 18th Infantry Regiment, 1st Infantry Division. He was graduated from the Advanced Course at the Infantry School in 1954 and then served with the 24th Infantry Division prior to beginning his current assignment.

nique of rifle fire and squad tactical training provided in Trainfire II can be applied right now, and at no cost. And instruction can be made more effective by using training methods prescribed in Trainfire II lesson plans.

Ultimately, of course, we should strive for full utilization of all prescribed ranges and devices which create in Trainfire II instruction the conditions of actual combat. When this is done, the Trainfire II squad will be combat trained and the rifleman in effect will be a veteran before he ever sees action.

TRAINFIRE II LESSON PLAN

This is a typical Trainfire II lesson plan. Similar plans are provided for all periods of training.

Technique of Rifle Fire, Part I

HOURS: 2 (concurrent with tactical training for squad in defense).

PURPOSE: To instruct the trainee in the technique of fire of the rifle squad.

1. Introduce Technique of Rifle Fire (1 minute).
Explain that technique of rifle fire trains rifle squads to act as effective teams in the application and control of collective fire.

2. Technique of Fire (4 minutes).

a. *Squad sector of fire.* Explain that a squad sector of fire is an area of primary responsibility for the squad; that the squad leader will point out the *center, left* and *right* limits of the sector, using landmarks. The squad is responsible to search for and fire at the enemy within the squad sector.

b. *Target sectors of fire.* Explain that when targets appear in the squad sector of fire the squad leader points out the *center, left* and *right* limits of the target. This does not relieve the individual of his responsibility for search and fire in his portion of the squad sector.

c. *Firing by technique.* To employ his maximum firepower the enemy most often will deploy initially into a line formation, presenting an irregular wide or linear target. Therefore, each member of the squad must know where, how and when to distribute his fire on the designated targets without detailed instructions on the battlefield.

d. *Sequence of techniques.*

(1) Target detection (find).

(2) Target designation (pinpoint target limits).

(3) Fire team sectors (where).

(4) Individual sectors (where): riflemen, automatic riflemen, team leaders, squad leader.

(a) Nr 9, automatic rifleman, covers the BRAVO team sector, overlapping the left limit of sector and the center of sector.

(b) Nr 5, automatic rifleman, covers the ALFA team sector, overlapping the right limit of sector and the center of sector.

(c) Nr 11, squad sniper, initially provides overlap with the left adjacent squad, firing outside the left limit of sector and to the right to cover the left portion of his (BRAVO) team sector. When employed in his sniper role, Nr 11 is located in a position from which he can best accomplish his sniper mission.

(d) Nr 10 covers the center portion of the BRAVO team sector, overlapping with Nr 11 and 8. When Nr 11 is moved for a sniper mission, Nr 10 may be assigned to the sector of Nr 11, as well as his own.

(e) Nr 8 covers the right portion of his (BRAVO) team sector, overlapping with Nr 10 and 4.

(f) Nr 3 covers the left portion of his (ALFA) team sector, overlapping with Nr 8 and 4.

(g) Nr 4 covers the center portion of his (ALFA) team sector, overlapping with Nr 3 and 6.

(h) Nr 6 covers the right portion of his (ALFA) team sector, overlapping with Nr 4 and the right adjacent squad.

(i) Nr 7, BRAVO team leader, normally occupies a position in the center of his team. He is a fighter-leader, directing his fire anywhere within his team sector at known or suspected enemy, as well as controlling his team fire.

(j) Nr 2, ALFA team leader, normally occupies a position in the center of his team, firing and controlling in the same manner as Nr 7.

(k) Nr 1, the squad leader, occupies a position from which he can best control his squad. Primarily he exercises control through his team leaders. He fires only when his firepower becomes more important than controlling the squad.

(5) Distribution of fire(how): riflemen, automatic riflemen, team leaders, squad leader.

(6) Conduct of fire.

(8) Fire control.

3. Description of Techniques (20 minutes).

a. *Target detection.* Point out that combat targets are usually obscure or hidden. Trainees must search for target indications and apply the techniques of target detection learned in Trainfire I.

b. *Target designation.* All squad members are responsible for target designation. Use the following methods to designate squad targets.

(1) Fire commands (display chart).

(a) Fire commands contain six essential elements of information about the target—alert, direction, target description, range, method of fire, and command to open fire. The *alert* brings the squad to a state of readiness and may tell who is to fire. The *direction* element states which way to look to see the target. The *description* element gives a brief, accurate description of the target. The *range* element, given in yards, tells the squad how far to look to see the target. The words "range" and "yards" are not used. The *method of fire* element tells who is to fire on the target and specifies the amount of ammunition, if applicable. Frequently this has already been announced in the alert element, and in such cases will be omitted here. When the squad leader intends to alert the entire squad but plans to use only part of the squad's fire, the method of fire element is included. The *command to open fire* element gives the command or signal to open fire.

(b) Each squad member is aware of or sees this information, or receives it orally or by signal from the squad leader. The elements are placed in sequence as an aid to memory. This fire command is standardized for use by all of our armed forces and our allies. Only the necessary elements are given to the squad, whether by voice, signal or SOP.

(c) During a fire fight the squad leader and fire team leaders have various methods by which they can control and direct the application of fire of the members of the squad. These methods of control are: oral commands; arm-and-hand signals; orders passed from man to man; personal contact; prearranged signals and SOPs; use of team leaders.

(2) Reference point (landmark) and lateral measurement by finger measurement.

(3) The strike of ball ammunition or path of tracer ammunition to mark center and flanks. This is the most rapid and accurate method.

(4) Pointing with the arm, or sighting along the rifle.

c. *Fire team sectors.* Display chart and explain that the ALFA (or right) team is primarily responsible for the sector of fire from the *center* to the *right limit;* the BRAVO (or left) team from the *center* to the *left limit.*

d. *Individual sectors of fire (where).* Emphasize that to insure maximum coverage of the squad sector of fire, the sector must be further divided into sectors for each member. Point out individual sectors for each member on Chart 7[3].

e. *Distribution of fire (how).*

(1) The rifleman fires initially on that portion of the target corresponding to his position in the team. His initial rounds are fired at known or suspected enemy personnel in his sector of the target. When there are no known or suspected targets in his sector, he fires anywhere on the team target at known or suspected enemy personnel.

(2) Each automatic rifleman initially begins firing just outside the flank of the team target. In short, accurate bursts, he fires across the team target, overlapping at the center of the squad sector of fire with the automatic rifleman on the other team. After gaining fire superiority, he fires at known or suspected targets anywhere on the team target, or at priority targets designated by the team leader.

(3) The team leader normally participates in the fire fight, firing at known or suspected targets anywhere on the team target where his fire is most effective.

(4) The squad leader must control rather than participate in the fire fight. He fires to defend himself and when the enemy assaults.

f. *Conduct of fire.*

(1) Explain that in the defense the squad opens fire on order from the squad leader, unless immediate danger requires individual action.

(2) Discuss Search-Fire-Check. Display chart. Explain that each man searches his team's part of the squad sector of fire as well as his individual sector of fire. He fires one clip at known or suspected targets, then checks his team leader for orders while reloading. Point out that when the enemy assaults there will be less time for searching and checking; emphasis is then placed on firing.

(3) Rate of fire initially should be rapid and accurate to gain superiority, and then rapid enough to maintain fire superiority. When the enemy assaults, the squad fires at its maximum rate.

g. *Fire control.*

Narrative:

"Control is accomplished primarily by teamwork. The means of control which you have previously learned aid in communication between you and your squad leader. The most difficult problem of control for your squad leader is to gain attention. The Search-Fire-Check SOP develops alertness in the squad and gives your squad leader a periodic opportunity to convey his instructions and orders."

(Emphasize accuracy and firing aimed shots. Point out that the rate of fire should increase as range decreases and consequent danger increases. The more distinct the target, the greater the justification for a high rate of fire.)

4. Conduct of Firing (85 minutes).
5. Movement to Tactical Training for Defense (10 minutes).

[3] See Figure 6 for illustration of this chart.

• Service Club

The Changing Face of

THE INFANTRY

IN this issue we feature several of the new or improved facilities at the Infantry Center for the enlisted Infantryman. Centrally located on the Main Post are a wide variety of accommodations for relaxation and recreation. Among these is the Main Post Service Club with game rooms, music rooms, lounges and kitchen facilities for "do-it-yourself" home cooking. Half a block

• Top. A home away from home

• Center. For quiet study

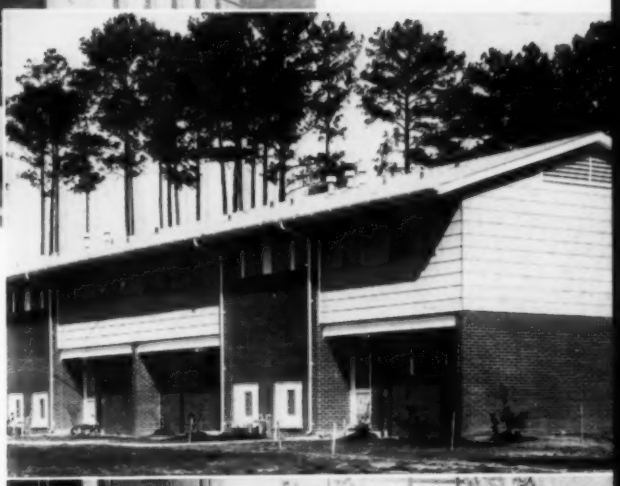
• Right. Main Post Library

• Theatre

CENTER

away are the beautiful Main Post Theatre and the Main Post Library.

Recently constructed living quarters for enlisted Infantrymen include Capehart homes for the NCO family and new barracks for troop units. Attractively furnished individual cubicles are provided for the bachelor NCO in quarters adjacent to Crain Hall, the new NCO Club.



• Top. New NCO family quarters

• Center, Privacy for the bachelor NCO

• Left. New Kelley Hill barracks

SELECTED EXCERPTS FROM

Sinai Victory

By Brig Gen S. L. A. Marshall

The author has selected and especially edited for *Infantry* this material from his most recent book.

Fundamentally, "Sinai Victory" was written with the hope that it would be helpful to the American Infantryman. While there is nothing really original here, it does provide an object lesson of particular value—that we get out of troops in battle just what we put into them during training, nothing more nor less.

My purpose in following the war in the Sinai Peninsula was to get at the nature of the winning army by examining in detail its movements, motives and moral forces under battle stress. There is a marked tendency in modern armed forces to believe that science may find a secret key to the strengthening of moral forces which in times past has eluded the most gifted captains. But certainly any mention of a possible key must suggest the necessity for holding to the best of what we already know. It does no good to hitch your wagon to a star if you forget to lock the tail-gate.

My observations covered not only what happened on the fire field but included the training system and the doctrine of the winning army as well. I found nothing new under the sun. Every rule of action, every precept and example set for and by leadership must have been old when the Philistines held Gaza. Yet, there is a lesson in the Sinai Campaign. At the high tide of danger, leaders took the boldest risks. They counseled their men to audacity by being themselves audacious. Amid dilemma, they resolved decision by taking the line of greatest daring. Exercising tight control amid crisis, they still bubbled with good humor.

One other command attitude was conspicuous. Men were pushed to the fringe of exhaustion but never beyond it. Right on the battlefield, with an attack pending, leaders halted everything to order a rest or a sleep if they felt that the condition of the troops demanded it. For this lesson alone the Sinai Campaign warrants our close attention. We know the principle but we are less sedulous in applying it.

S. L. A. MARSHALL

In Sinai, the action of Israel's soldiers was distinguished by a uniform decisiveness—the ability to give an intrepid order almost instantly or to move on impulse against danger with no hesitation. If the character of the force in combat reflected directly and in accurate proportion what the training system sought to make of its human material, there might be lessons out of Sinai of interest to soldiers everywhere.

My conclusion while in Sinai—and it stays unchanged—is that Israel's Army did it by extending the limits of military daring. Hitting forces traveled farther over more formidable country in less time than any other combat body in history. Decision was won in three days. By the fourth day some of the brigades (the Israeli term for regiment) were mopping up two hundred miles beyond their assembly points.

This alone is a feat at which to marvel. A fortified area about half the size of Nevada and far more repellent than the harshest wastes in that state was conquered by a small field army fighting as it drove forward almost at the rate of an unopposed motor caravan.

* * *

The mediocrity of the opposition had something to do with the phenomenal pace of the invading army. But it is only through the close-range view that the opposite and more significant truth stands clear: *the soldiers of Israel invariably looked their best in those hours when they were beset by the greatest combat difficulty and the enemy pressure became such that total disorganization should have ensued.*

Motorization and tracks made possible the record marks in mobility. Without tanks, without half-tracks, Israel's Army could not have started. But there is no bright new magic in that. The United States Army, which has had such vehicles for a generation, has not assured itself the same *sustained* mobility.

What made the difference? Certainly not professional zeal and efficiency, for Israel's Army is not professional in the way Western nations use that term. The campaign was

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not aided by any new secret making possible a more adequate supply in the fighting zone. *Israel's ranks are not particular wizards at motor maintenance and battlefield repair.*

To the contrary, Israel's Staff professes an ignorance of logistics, which in more sophisticated circles has become a kimono-like word, covering everything and touching nothing. Staff members claim—so earnestly as to invite skepticism—that the governing principle is to "send the combat force against the decisive object and then order the supply people to keep up."

Within their training system there is relatively little schooling in the problems of field maintenance, and in the field no such elaborate echeloning of technical skills and parts stores as we know. During fighting operations the fighters do most of the repair. They explain, "Many of us are farmers. We learn the knack on trucks and tractors."

Briefly then, Israel's Army is a fighting body in spirit and not a balanced aggregation of highly trained specialists. In a frontier sort of way, it looks the part . . . . All that counts is the end object which discipline elsewhere is supposed to serve—undeviating performance of the task. Israel gets that from its soldiers without polish or spit, except as the latter is applied to the hands.

☼ ☼ ☼

This Army, composed for the great part of men who had to spring from the plow or rush from the office, was given only three days to form and move on Sinai. In that time, its reservists had to assemble, equip, deploy and get such limbering up training en route as the hours permitted. Brigade and battalion commanders were read into the plan only after mobilization and movement were well under way. With rare exception, their own parts, including sectors and in some cases main objectives, were not preassigned. They still had to shape their attack plans, contrive such basic reconnoitering as was possible and issue their orders. . . .

Commanders were told to keep battle losses minimal and not encumber their columns with prisoners if it was more opportune to let them get away. All efforts were to be directed toward squeezing out and destroying opposing fortifications. This stricture, imposed because it suited both the political nature of the fighting problem and the moral standard of Israel's troops, made an utmost requirement of movement, while lessening the normal accent on fire.

It would work if communications held up most of the time and if the Egyptians, with their advantages of owning the high ground, where they were relatively safe under deep earth cover, fronting flat fields of fire, were not overly resolute. Both calculations proved accurate. Communications broke down a few times, and usually, as is to be expected, at the highest pitch of the local fire fight. The Egyptians broke down more frequently, giving way time and again in these same minutes of heaviest pressure.

Strength overcame disorganization because Israel's Army fights that way. When the attack becomes disjointed, when radios are muted by fire and lower commands are out of touch with the steadying hand higher up, Israel's soldiers nearest the enemy invariably follow their standard procedure. They close up on the defender's works.

That is the main lesson from the battle story. The phenomenal mobility of Israel's Army isn't generated out of machine power but out of the unanimous acceptance and application of a fighting doctrine which of its essence becomes unifying in the hour of greatest danger. Gideon's band may have held to the same simple rules. There is not one new idea in the doctrine. The startling tactical pace of the Army comes of applying sedulously those methods and precepts which all armies tell their Infantry and Armor will best maintain unity in battle. The difference is that Israel's soldiers hear and believe.

It's a short list.

- Leading means moving to the point of main danger if decisive pressure is to be maintained. There is no excuse for holding back.
- When orders can't get through, assume what the orders would be.
- When in doubt, hit out. The short route to safety is the road to the enemy hill.
- Don't attack head-on; there is usually a better way.
- When troops are truly exhausted, hold back and rest them.
- Waste no energy in useless movement. Maintain the pace of the attack so long as physical resources seem sufficient.
- If the force designated to attack is not suitably armed to overrun the position, pull off and call for what is needed. Avoid useless wastage.
- Don't delay the battle because of supply shortages which lie beyond its probable crisis.
- Keep your sense of humor if you would save your wits.
- When trapped by sudden fire,

movement means salvation more surely than a foxhole.

- Always try for surprise in one form or another.
- When local surprise is possible, don't expose movement with premature fires.
- In the attack, risk, risk, risk.

. . . What a few men thought and dared to order is perhaps more instructive than what many men did. The campaign was won in a whirl with such slender forces that it is almost a miracle they were not beaten by space alone. They did it on nerve more than with fire and deception. It does not cheapen their performance that the resistance was spotty: full courage is not a relative thing. The record is not without blemish. Here and there a leader hesitated, either trying to command from too far back or bending his ear more to the beat of danger than to the call of tactical opportunity. When detected, he was relieved. No excuses tolerated. No explanations asked.

Commander of an Infantry Brigade conducts a briefing prior to the attack on Rafah.

Israel's High Command says: "Success comes when leaders lead instead of pushing." The Army guides by that rule on the battlefield. Squad, platoon and company commanders go first into the fire. Should the attack temporarily stall because of strong resistance, or become unhinged from severed communications, battalion and brigade commanders go posthaste to the center of action and restore movement. If there are two points of disarrangement, the second in command also goes forward.

In the Sinai campaign, these personal-risk missions seldom recatalyzed the attack. The reason is that the people lower down had already acted strongly to restore movement. Would they take hold as vigorously unless they knew that the boss man would soon be there? is a good question.

Measured in bodies only, the cost of this code comes high. Of Israel's soldiers killed in the Sinai war (less than 200) half were leaders. Yet the Army believes that this ratio of expendability among its best-qualified fighters is more to be honored than deplored. The Staff says: "That kind of leading, exemplified at all levels, inspires more men to become leaders."

. . . Mobile in the extreme, the campaign was made so in part by the linking of adroit movement with extraordinary economy of fire. It was in no sense a cut-and-dried, factory-contrived victory. A bit too patronizingly, experts writing about the military power balance in the Middle East tend to stress the great superiority of Israel to its neighbors in the count of fighting machines. This is an oversimplification which ignores the controlling fact that whether one may apply more power or less at the decisive point is according to the radius of operations . . . .

Perhaps more significant than the straight narration of how . . . manual tasks were managed is the rather clear indication, out of this campaign, that in the fighting man usually physical endurance seems ever the by-product of sustained spiritual boldness. One other highlight deserves equal attention: though physical fitness in ranks and an intrepidity of decision in command, which at times bordered on recklessness, set the pace of the battle, Israel's Army seemed to be acutely sensitive to the limits of its human material. There are many shining examples in the campaign of commanders' pausing deliberately in the crisis of action to rest their troops.

Over the world the operation which swept Sinai clean has been praised by soldiers as a "masterpiece of mobility." Statistics support the description. But statistics never win a battle. The proof of whether the masterpiece was made by the mobile mind and the willing heart rather than by the machine is to be found only in the small picture of the fire fighting. The men of this small army did the best possible with what they had. They responded as if what is all-important is to live life fully while one may. To regard their effort in

Sand presents problems for wheeled vehicles—9th Brigade desert route.

any other light is to miss what counted most in the Sinai adventure. . . .

All hands were ready to gamble. But they did not risk blindly. They gave orders only after doing their best to learn the odds. That was why so many leaders died. They went forward to learn rather than to try to play the hero. . . . Contagion of courage is the source of all battlefield unity; the power of decision has no other essence than the acceptance of superb risk; action itself increases mental resilience to a degree unsuspected until it is experienced. Military history reveals this truth on every page, and its most recent chapter, written in the Sinai sands, is but another object lesson in the binding and uplifting effect on military forces which comes of the bold gamble. The immediate corollary to this is the weakening influence of the merely calculated, rationally planned way of doing things.

* * *

True decision, by its nature, in combat and elsewhere, consists in determining a line of action when choices are equally difficult. All war is a gamble. Its chief prizes fall only to the player who, weighing the odds carefully as he moves from situation to situation, will not hesitate to plunge when he feels by instinct that his hour has arrived.

Of necessity military training systems instill in leaders respect for the high virtues of careful planning and closely reasoned estimates as a basis for action. This is the main stream of all education preparatory to battle. If any other course were taken, military forces could not even conduct an approach march in an orderly manner, and their hopes would be at the mercy of the most impetuous but thoughtless spirits among them.

But there always comes a time in battle when the most careful planner must also be foremost in willingness to take a superb risk if there is to be inspired leading toward the desired object at minimum cost. The ablest young battalion and company commanders that are to be met in combat are men of this type. They are sedulous in planning and preparation. They make their dispositions painstakingly. They insist on personal reconnaisance to a point where it nettles their subordinates. Thus they have at all times the feel of their own situation, which is one half the battle. But at the opportune moment they are ready to "shoot the works."

This is the essence of real generalship at all levels. It is a quality of the spirit that any man may bring forward in himself, provided that he has become truly the master of his work. But if he is careless of detail, his spirit will be possessed of a false bravado, rather than a well-placed confidence, and he cannot even make the start. The spirit of thoroughness combined with daring is the mainspring of action in all military forces.

Israel's Army in Sinai is a case study in how group power is generated by consummate daring in the command. To the limit possible, leaders looked to their own forces, kept check on the sufficiency of supply, sought all information which might be helpful and exercised steady control over the whole. But when forces seemed too few, supply drained low and intelligence of the enemy was lacking, they still marched forward.

* * *

Israel's Army believes that it takes a minimum of 30 months' hard training to make a fit combat soldier. Every reservist has that much steady service behind him before qualifying for stand-by duty in a home-town unit. Both in the reserve and in the active Army, training is more rigorous, puts heavier emphasis on field combat exercises and makes heavier demand on the physical powers of the individual than in the United States Army.

There is no minimum educational requirement for induction. There is none for promotion or for elevation to, and within, the officer corps. All officers are made from the ranks. The average field-grade officer has less than a twelfth-grade education.

There is a minimum intelligence requirement for retention in the Army once the man is inducted. Every recruit must pass a basic examination designed to test his common sense, reasoning power and reaction time.

During training, the soldier is thrown more on his own than under the United States system. All instruction is pointed toward sharpening the power of decision in the average individual. Physical exercise and lecture courses are aimed to test and

increase personal initiative. Israel's trainers believe that teaching the man to think clearly, observe keenly and report accurately is the main object in the school of the soldier. Accordingly, relatively little importance is attached to perfection in the manual of arms, parade-ground drill and other routines familiar in Western armies.

Troops are kept moving about in open country as much as possible. The average recruit is strong in the legs, having hiked around since childhood. From the hour of his entry into service, he needs that muscle power, for it is pushed hard.

The Army wastes no time in road marching, believing that a 30-mile movement across ridges does more to condition troops than 70 miles on the flat. Most marches are an approach to a combat exercise. Even when the reserves take their periodic training, they are kept in the open and are put over rough ground, traveling by night. Every camp is an armed bivouac on a position suitable for defense; no time is spent at a training base. Say the trainers: "That would be a waste. The men would be put on police tasks; we don't call that training." While in uniform, the reservists live away from their families, as would soldiers fighting a campaign, and they seem to like it better that way.

During training, the reservist subsists on hard field rations. No blankets or overcoats are issued for the bivouacs. The staff feels that the toughening process is furthered by letting the man sleep cold on the ground.

What the Army requires physically of its troops is illustrated in the testing course given the recruit, after it is decided that he is potential NCO material. Such aspirants are divided into packets of three; then each member of the team is put under a 20-pound load, including his rifle and ammunition. Next, the team is given a march schedule which keeps it moving 40 miles per day for three days running, through sharp ridges, such as are found in the Galilee Country. Two thirds of the route is covered by day, the other by night, the whole taking approximately 30 hours of the three days.

In another test, the body of NCO candidates must march 40 miles and finish in eight and one-half hours. No starter is permitted to fall out. If he shows signs of faltering, his comrades must help him along. If he fails, they must carry him.

The obstacle course, which tests the same class, is taken under pack and rifle. There is first a 400-meter run, which includes the scaling of a six-foot wall and the walking of a 20-foot parallel bar. In the next 400-meter lap, the recruit must crawl of his belly 15 yards under barbed wire, go through three ditches filled with running water, walk the plank over a fourth ditch 10 feet deep and throw a live grenade at a target. He then runs another 600 yards free of obstacles. Provided he finishes the 1400-yard course in less than 11 minutes, he qualifies for a "silver rating."

Though a night-fighting body, Israel's Army does not put preponderant emphasis on night training in its schedules. Rather, it follows the principle that programs of night and day training should be balanced according to a reasoned estimate of what will be required of a particular facility, or tactic, during combat.

As things work out, about one third of all training is done at night, including specialist training. But if, for example, it were estimated that 95 percent of all mine-laying would be done during the daylight, mine-laying would get little attention in night-training schedules.

Upon entering the Army, the inductee must serve at least six months as a private. But he may be tabbed for leadership immediately because of his personal qualities and a high IQ showing. In that event, he is sent quickly to section-leaders school, where he spends five months learning to handle what Americans call a squad.

Every week he works 52 hours or more. At first, he listens and obeys rather than attempting any leading. His instruction in the use of small arms will be divided 12 hours by day, 4 by night. On terrain study, the use and making of maps and how to take up ground, he will spend 54 hours by day and 30 by night. On how to direct and control eight men during combat, he will get 22 hours of practice by day and 8 by night. All of this will be field work, away from the desk.

At the stage when he takes over and begins directing the squad (section) in its exercises, the work equation is as follows:

Ambush operations—12 hours day, 11 night.

Attack on a village—5 hours day, 3 night.

Squad in the general attack—34 hours day, 12 night.

The totals are 103 hours' day training and 51 hours' night training. Beyond that, he gets 181 hours of lecturing on how to lead a section, which includes 10 hours on the principles of war and 12 hours around a sand table. Then he spends another 98 daytime hours and 64 nighttime hours in exercises where his section operates within a platoon. At the

Desert track near Abu Agueila.

end he is qualified to be a corporal and is posted to a unit, either to lead a section or to become an instructor.

As a basic soldier, he is paid 10 dollars per month, with no allowance to his family. The reservist is paid the same, but gets compensation for his family from both government and his employer, which brings his total income to 80 percent of civilian pay.

All training programs, including the first instruction given the recruit, stress the conservation of human energy during combat and the danger of overextending operations by assigning tasks which are not within the physical limits of men.

"Never overload the soldier; rest him whenever possible." Reiterated at all stages of training, the two rules became ingrained in the junior leader. Says the Staff: "We learned the hard way that this is the road to salvation."

During training, one third of body weight is the maximum load permitted the soldier. That includes uniform, pack and all else. During combat, the load is lightened, according to the theory that his energy will be less under fire, rather than more.

Training exercises are kept "realistic." This is to say that a platoon or battalion in the simulated attack is not required to make a longer approach march than it could well do, were fire present, without pushing itself to exhaustion.

"Don't be too eager; don't pile on the pressure," has an odd sound, coming from a General Staff. It's said in Israel to junior leaders by way of emphasizing that men should be rested at every opportunity, instead of settling on them that extra fatigue during the mounting-up process which comes from needless anxiety in the command chain.

Elsewhere, it's a too familiar story. The colonel says, "Be ready at 0900." So the captain tells his platoon leaders, "Be ready at 0800," and they tell the section leaders, "Be ready at 0700."

Israel's Army shuns this practice like a plague. The recruit, on his way to become an NCO, is told that if he checks his men, and they look relatively ready, even though they are still sleeping, it's a sign of weakness in him if he routs them out ten minutes too early merely to further his own peace of mind.

Once a month, the Education Department of the Army's GHQ publishes a pamphlet about the land, its social problems, political goals, etc., for the benefit of troops.

The information is the precis for an orientation lecture. Each unit commander is supposed to give such a talk to his troops at monthly intervals. Like the average American officer, he dislikes the chore, tries to brush it off and sometimes succeeds.

Though Israel is a new nation and a melting of peoples with many tongues coming from everywhere, the Army attaches relatively little importance to the proposition that training for better citizenship, and clearer understanding by the soldier of his cause, is the one best way to build military unity and stimulate the fighting spirit.

The General Staff regards indoctrination as one more means of habituating officers to stand before their own people and talk—the chief value deriving from the program. The General Staff spokesman said, "It is our contract to take an average civilian and make of him an efficient, successful fighting man, skilled at arms and proud of his unit because it has combat power; we believe that out of his Army experience, he will almost automatically mature into full, cooperative citizenship."

Toward heightening the power of decision in all ranks, the Army's doctrine, as published by High Command, or expressed by a section leader, emphasizes task, mission, objective above everything else.

"The battle will never go as you planned it; but you still have your task," epitomizes the main idea. Along with positiveness of aim, there is proportionate emphasis accordingly on flexibility of means. When given a mission, the leader is told that he will exercise his own judgment about how to perform the task if his instructions prove unsuitable. But he cannot withdraw without permission.

Such phrases as "at all costs" are avoided in Army orders because of

Paratroopers dug in at Mitlah Pass.

Paratroopers organize a position near Mitlah Pass.

their ambiguity. The patrol sent to reconnoiter with instructions to avoid detection may return at will if sighted by the enemy. On the other hand, a patrol of the same size, if sent to destroy a roadblock, must stay with the task as long as any chance remains that it can be accomplished.

The patrol can't quit simply because it has been badly shot up. But if in the judgment of the leader, it has taken so many casualties that the able-bodied have been immobilized by the weight of the wounded, he may withdraw without permission, and his decision will be accepted if the facts prove consistent with the Army's rigorous standard.

The radical disregard of supply sufficiency which marked Army operations in the Sinai campaign directly reflects teaching by the Army trainers. Leaders are told: "Logistical means are of secondary importance. Things are never perfect. It's more risky to wait. So go on and hit. Don't drag your feet because supply is short. The means will come to you. You've got to take a chance."

One brigade commander expressed the doctrine this way: "In combat I plan my move. Briefly I go over it with my staff to sharpen their appreciation of the next action. If I learn that ammunition and fuel supply are less than that minimum which would certainly enable me to close on the enemy position, I reconsider. Then if the essential supply is less than 50 percent of what I think I need, I would think twice before moving, and would feel justified in postponing action. But if supply is half or more of my estimated need, I would attack, unless the reading of the situation convinced me I had no chance whatever."

Another said: "The principle holds all down the line that each level has discretionary power and nothing is absolutely rigid, but we of the line have a right to demand of the logistical system that it keep up. Why not? It's geared to the same pace we are. If I let fears about it dictate my moves in combat, that would lessen the pressure on it to stay abreast of me. The result would be watered-down decisions from front to rear."

Where the combined arms move together on the battlefield, the governing principle is that continuity in integration and in general assignment of task is the best insurance of performance.

Relationships between Armor and Infantry, hitting as a team, remain flexible; where command is placed depends on the nature of the tactical task, the ground and the personalities of the several commanders. The one guiding rule is to avoid change, according to the observation that every reintegration of forces during combat diminishes hitting power.

As much as possible, Infantry is directed to attack by night, thereby to further both surprise and protection, since darkness is a form of cover. Where there is no choice but to attack by day, Infantry is supposed to move with close support by Armor, though not using it as a shield. The Infantry should be within five minutes' closing distance of the enemy line when the preliminary air strike comes in so that it can grapple before the shock is gone. Except that it puts less accent on field-artillery support, this part of the Army's doctrine has a familiar pattern.

During the Sinai fighting, the Gen-

eral Staff concluded that reserve officers have less capacity than "regulars" for a quick shift of direction amid battle and the making of a bold decision.

The civilian leader undeviatingly responded to orders. He was less apt to see the opening clearly and change his line abruptly when the battle became fluid. That was understandable; 30 days' training per year provides too little exercise in "adaptability."

So something new was tried to test and make more acute the decision-making faculty in reservists. It is a three-day command-post exercise which starts at a slow trot and finishes like a cavalry charge.

The battalion commander is taken into the field with his staff, communications people, his company commanders and their operations network. Then he is given a tactical exercise out of a variety—capture of a tank-defended town, attack on a fortified ridge, breakthrough of a fortified pass, destruction of a major roadlock, etc.

On the first day, all of his means for careful calculation of decision are present. He is given 22 hours to form a plan. Air photos and maps are available. Any amount of reconnaissance is permitted, as is unlimited consultation with his staff, though all hands must act as if they are in the presence of the enemy. He commands through written orders. Control officers are down with his company commanders and they feed back information about how the situation is developing. In the end, he delivers his plan and movement order to the brigade.

The charge at Abu Agueila.

At that moment, he's told, "Everything's changed. Your H-Hour remains the same. But the brigade is making a 90-degree change in direction. It's been stopped on the right. So that's your target—that hill over there. There's no time for reconnaissance. Here are the maps and air photos. You'll have to move in 30 minutes. We want your decision before then."

In the interval, the control officers are shoving information to the companies and it comes back to battalion in full flow while the chief and his staff are weighing what to do. The pressure builds up, up, toward the climax.

The worst bump comes as the battalion commander presents his second plan. He is told, "Again, everything's changed. The enemy is cracking on the right. You've lost half your force. You attack straight ahead against Hill 300. There's no time for map checking or staff talk. We want your decision right now."

In the final phase, the statement of enemy strength and the distance to be traveled makes sound solution of the problem barely within his limits of time and men. It remains just possible to take the objective. The commander's decision therefore initiates a workable plan only if, in his mind, speed of thought presages rapidity of movement and daring improvisation. The primary idea is to sharpen faculties; the secondary idea is to test their sufficiency under emergency conditions.

Every battalion commander is put through this mill. Change in the character of the exercise is constant. Some of the preparations have general application. But it is left to the brigade commanders to write the exercises according to what patterns they judge will provide the most practical and decisive tests. GHQ reviews the plan and makes the controlled stores and umpire personnel available.

Some battalion commanders, given this processing, become completely shocked. Others meet its challenge without turning a hair. Along the road, higher command learns which officers excel at planning, which at on-the-spot improvisation and which at control. As personal weaknesses become revealed, further training is directed toward producing balanced "adaptability."

* * *

Maj Gen Moshe Dayan (Army Commander) as a fighting man holds to the conviction that in battle boldness usually pays off. The spontaneous unity when under fire of the men who form the brigades hardens out of this controlling idea.

While the Sinai campaign lasted,

General Dayan with the late General Simchoni (left) and Colonel Yoffe (right).

nothing else made possible the command resolution which held ranks to an almost excessively demanding line of duty. So it has ever been. There is little virtue in combat leadership except as the masterminding of tasks is based upon accurate, applied knowledge of the physical and spiritual limits and resources of the men who must fire the rifles, jockey the half-tracks, get the caissons rolling or, for that matter, man the Nike battery.

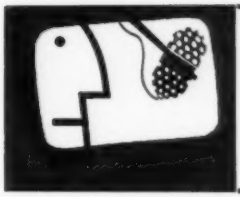
This fundamental truth, as it bears upon the complex task of getting the best possible performance from men in their hour of greatest danger, is best expressed in what was written almost half a century ago by John Masefield. He said:

"The efforts of men are limited by their strength. The strength of men, always easily exhausted, is the only strength at the disposal of a general. It is the money to be spent by him in the purchase of victory, whether by hours of marching in the mud, digging in the field, or in attack. Losses in attack are great, though occasional. Losses from other causes are great and constant."

There could hardly be a more dire loss to national strength than occurs when generalship itself rejects the main lesson, neglecting the resources of the human spirit because of the hope that they flourish almost unattended and the illusion that the foundation of decisive power is formed of superior materiel.

Exalting super-weapons, the new age promotes that danger. Such is its strident tone and such the endless quest after great technological sensations that one watching it in detachment might well believe that man himself, his ability to endure, his readiness when trained to match courage with courage, no longer weights the balance in human affairs.

Maybe it is only in this frame that the story of a last, small and rather old-style war would be found worth the reading. When the lamps are trimmed a little, we may return somewhat closer to the heart of things.



QUARTERLY QUIZ

Answer the following questions. Determine whether you are a Bolo, Recruit, Marksman, Sharpshooter or Expert. Each of the questions is worth 10 points.

1. In a night attack, the weapons squad of the rifle platoon:

a. moves in column at the rear of the platoon during movement to the probable line of deployment.

b. supports the assault from on or near the line of departure.

c. forms a reserve for the platoon.

d. deploys with the rifle squads at the probable line of deployment and moves forward in the assault delivering assault fire.

2. When a tourniquet has been applied to control arterial bleeding, it should be loosened:

a. every 30 minutes.

b. when shock is evident.

c. by the person who applied it.

d. only by trained medical personnel.

3. The approved method of purifying a canteen of drinking water in the field is to add:

a. one salt tablet and boil for 30 minutes.

b. two halazone tablets and wait 30 minutes.

c. two water purification tablets (iodine) and wait 30 minutes.

d. one calcium hypochlorite ampule and wait 30 minutes.

4. Military equipment and vehicles exposed to the effects of a nuclear detonation are primarily damaged by:

a. thermal radiation.

b. prompt nuclear radiation.

c. residual nuclear radiation.

d. blast.

5. Due to the rapid lethality of nerve gas, the gas safety rule is to don the protective mask whenever mass shelling, air or spray attack occurs, or when the enemy places smoke on friendly positions. The protective mask is removed only after:

a. the shelling stops or smoke lifts.

b. no odors are detected.

c. ten minutes have passed.

d. a check has been made with the chemical agent detector kit.

6. The officer on the battle group staff who has primary staff responsibility for determining the risk to our forces from enemy use of nuclear weapons is the:

a. executive officer.

b. S2.

c. S3.

d. S4.

7. What rates of fire are prescribed for the machinegun, 7.62mm, M60, and how many rounds per minute are fired at each rate?

8. The SS10 antitank guided missile may be launched from (check all correct items):

a. the ground.

b. a wheeled or track-laying vehicle.

c. a helicopter.

d. a fixed-wing plane.

9. Command maintenance inspections are performed:

a. once a year on a minimum of 50 percent of an organization's vehicles.

b. twice a year on a minimum of 10 percent of an organization's vehicles.

c. twice a year on 100 percent of an organization's vehicles.

d. once a year on 20 percent of an organization's vehicles.

Continued on page 54

PRO & CON

A REGULAR FEATURE

This column provides a forum for open discussion on both sides of controversial subjects. If you and your associates hold opposite views on a topic of interest to Infantrymen let us have your thinking. We want both viewpoints.

Stick with the Bayonet!

By Capt Carlton G. Barber

IN THE future, as in the past, the United States will continue to place high value on the life of the individual. To this end, our soldiers are equipped not only with weapons of mass effect, but with weapons which provide individual protection and which can mean the difference between life or death.

While the rifle itself is most effectively employed against the enemy when a unit coordinates its fires according to plan, individual use of the rifle is not ruled out. It is also a weapon of personal defense.

By giving the Infantryman the means of personal protection we contribute to his security and safety, and in effect make him a better offensive fighter. The bayonet is one of these means. Nobody claims that the bayonet is a major weapon. It is, however, a necessary one because—in addition to its more positive roles—it gives every rifleman last-resort protection.

Regardless of increases in magazine capacity and ammunition availability, ammunition still runs out. This can be especially true in wide-ranging nuclear conflict, when mobility outstrips supply.

Regardless of advances in weapons reliability, malfunctions still occur. However much we improve our weapons, they will still be subject to failure. Here again, the bayonet fills in.

Certainly, advances in weapons design have not yet produced the "ultimate hand-held weapon." Even the operation of automatic weapons is not continuous. In confused, close-in action, the rifleman at times must destroy his enemy immediately, without time to reload or fire a rifle. In such a situation, the bayonet may be the difference between success and failure—between life and death. It is always "loaded" and a split-second thrust "operates" it.

This capacity was well-demonstrated in the attack upon Hill 180 in Korea by Company E of the 27th Infantry. Led by Capt Lewis Millett, E Company made what Brig Gen S. L. A. Marshall calls "the greatest bayonet attack by U. S. soldiers since Cold Harbor in the Civil War." Captain Millett himself rushed an enemy position and killed its three defenders with the bayonet. It is doubtful whether Captain Millet would have had the same success in such close quarters without the bayonet. Whatever else is said about the battle for Hill 180, the fact remains that 18 enemy soldiers were killed by cold steel during that assault.

It is claimed that a bayonet assault exposes the rifleman to unnecessary danger, since he must employ the bayonet in a standing position. Obviously, there is some danger in any advance against the enemy. Moreover, it is difficult to see how the rifleman can be considered safer when he delivers marching fire during the assault than when he assaults with his bayonet.

There are some situations in which the bayonet will have the primary role, not merely an alternate one. For instance, when our own men and the enemy are intermingled, indiscriminate rifle fire is particularly dangerous. The bayonet, however, can be used with safety and effectiveness. The bayonet is the most selective weapon we have. It kills only the soldier it touches, not someone who is yards away. As long as Infantry closes with the enemy. this capability will remain an important one.

At night and during conditions of poor visibility, the bayonet permits the same selectivity, and may by its presence alone discourage premature firing and the tragedy which can result from it.

Where stealth is required, obviously the rifle cannot serve in place of the bayonet. The flexibility of the bayonet, which permits it either to be hand-held or fixed to the rifle, is an advantage not offered by any other blade-type weapon. Moreover, when it is fixed, the bayonet gives the rifleman a dual capacity—blade and bullet. His rifle is not put out of action when he uses his blade.

These are the direct advantages of the bayonet. There are many indirect ones. To begin with, the bayonet has become a symbol of courage and determination, and therefore has a valuable effect upon our psychological preparedness. One of the intangible means of preparing our men for combat is to impress upon them the grim demands of war. Their duty is to kill. If they can kill at a distance, using a complex weapon which requires only the pressing of a button, this is well and good. But they must be just as ready to kill face to face with a bare blade, if it comes to that.

This is especially true of the Infantry soldier who meets the enemy in personal, hand-to-hand combat. His mission is to close with the enemy and destroy him. The bayonet prepares him to do this. In some quarters, the bayonet is regarded as just one of many alternate symbols of the Infantry mission. Actually, there is no other Infantry weapon which so clearly represents the Infantry role. The bayonet conditions the Infantryman to his job.

This weapon has a definite psychological impact on the enemy, as well. Of course, he cannot be expected to turn and run as soon as he sees us fix bayonets. At first he may not even notice. But this much, at least, is sure—when the bayonet is close enough to kill the enemy, he cannot help noticing it and he may very well be demoralized by it.

Bayonet drill has another function besides the obvious one. It provides excellent physical training. The bayonet assault course is a strenuous exercise which demands a combination of fitness and skill. It therefore helps to create the "total military fitness" which has been identified as the major aim of our efforts toward preparedness. Calesthenics, though they improve physical conditioning, do so in a non-combat environment. Bayonet drill, however, gives direct and immediate point to physical fitness and helps to create the proper orientation of fitness as an end to combat superiority.

It is significant that the Red Army has continued to place full emphasis upon the role of the bayonet. In fact, the Soviets even equip their automatic weapons with a short bayonet. They have always placed a great emphasis upon fighting under cover of darkness and in conditions of reduced visibility. The bayonet, of course, is particularly adapted to this kind of fighting, and equipping our own riflemen with the bayonet may therefore be a plain question of preparedness. There could be a very definite psychological effect upon our Infantrymen if the enemy were prepared for bayonet fighting and we were not.

The value of the bayonet cannot be measured by the number of kills or by the frequency of use. It has specialized reliability which makes it an indispensable weapon. Certainly nothing can replace the confidence and willingness to close with the enemy which the bayonet breeds.

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Goodbye Bayonet!

By Capt James R. Semmens

THROUGH the years, the primary purpose of the bayonet has remained unchanged—to give the soldier an alternate means of protection when he can no longer fire his rifle. However, as firearms have been perfected, the necessity for the bayonet has diminished.

When reloading was a time-consuming process, the combat soldier needed the reliable protection of bare steel against a sudden enemy charge. But since the development of semi- and full-automatic weapons, defensive use of the bayonet has been limited largely to situations in which the rifleman ran out of ammunition, or his weapon malfunctioned.

It is true that the bayonet also has had an offensive role. In close-in fighting, it can compensate for a lack of flexibility in firearms. Again, however, continuing weapons development has given the Infantryman a weapon which is lighter, more adaptable and much more reliable.

These improvements in reliable firepower raise questions about the place of the bayonet on the modern battlefield. A place cannot be justified solely on the grounds that the bayonet in the hands of selected individuals is occasionally an effective weapon—for even the saber could still have such an isolated utility.

Our combat experience in World War II and in Korea should give some indication of the bayonet's usefulness on the modern battlefield. Actually, the most significant fact about its employment during these two con-

flicts is that there were so few instances of its use. Recent historical examples in which the bayonet was employed on a unit scale are relatively few.

Probably the most publicized example concerns the use of the bayonet by Easy Company of the 27th Infantry in Korea. Commanded by Capt (now major) Lewis Millett, Easy Company used a bayonet charge to seize Hill 180.

The men of Easy Company, in common with many riflemen in Korea, had discarded their bayonets. Captain Millett, however, obtained a resupply and gave his men four hours of intensive training with this weapon eliminating many standard maneuvers which he deemed impractical.

In a preliminary engagement to the battle for Hill 180, Easy Company fixed its bayonets, but they were not used since the enemy departed hastily without offering resistance. Brig Gen S. L. A. Marshall, in his article, "Bayonet Charge," in the June 1951 issue of *Army Combat Forces Journal*, remarks that in this attack, "in common with the greater number of 'furious bayonet charges' reported from the Korean War, there had been no use of cold steel."

The assault upon Hill 180 occurred two days later, and once again the bayonet was used on a unit scale. The 14 men of the first platoon, including Captain Millett, attacked first, and later were joined by the third platoon. In the ensuing battle, a total of 47 enemy soldiers were killed, 18 of them with the bayonet. "Kill 'em with the bayonet," Captain Millett had yelled to his men, and they followed his lead.

While Easy Company's assault proved that aggressive leadership makes a major difference in unit effectiveness, it did not prove, as many commentators have believed, that the bayonet has indisputable value on the modern battlefield. S. L. A. Marshall has this to say: "What had been shown mainly was that Millett and Easy Company together formed a combination ideally suited to shock action, and that a man standing upright to go in with a bayonet is a sucker for a bullet in the back of the head."

This last remark of General Marshall's is a telling one. The fact is that the bayonet must be employed in a standing, "free-wheeling" position and, now that weapons have become so accurate, it can be fatal for a rifleman to get into that position during battle. Moreover, the bayonet is not a weapon that requires the Infantryman to remain upright for only a few seconds. Instead, it is necessary for him to stand, and to keep standing until he has dispatched his opponent. This, of course, gives every enemy rifleman in the vicinity time to draw a leisurely bead on him.

Furthermore, this danger is not compensated for by any special capability of the bayonet. Actually, the lighter weight, greater accuracy at long distances and greater flexibility at short ranges, larger magazine capacity and increased reliability of modern weapons have reduced the necessity for bayonet fighting. Again, it is not that the bayonet can't kill, but rather than the rifle *can*. Even where stealth is demanded, a dagger-type weapon probably would be more effective than the sometimes unwieldy bayonet.

Some attempt to justify the bayonet is made on the grounds that, even though its battle effectiveness is not great, it has psychological values which benefit our own men and reduce the enemy's will to fight. There is no doubt that aggressive spirit is of primary importance. However, there is also no doubt that at a range of approximately 150 meters, it is virtually impossible for an enemy soldier—even a specially trained one—to determine if we are attacking with or without fixed bayonets. At this distance the bayonet is not likely to make the enemy turn and run, for the obvious reason that he probably won't even see it. The enemy can, however, see that he is outnumbered, he can tell when the ratio of firepower is against him and he can detect determination in the assaulting troops. These factors account for a large number of "successful" bayonet charges.

As for our own men, it is claimed that the bayonet infuses them with an aggressive spirit which wins battles. To a degree this is true, but there is no reason why any personal weapon cannot develop courage, stamina and the will to assault equally as well as the bayonet. Instilling an aggressive spirit into the soldier is a matter of effective leadership and training—not specifically a matter of 10 inches of steel.

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QUIZ (Continued from page 51)

10. The division CG/command radio net is normally restricted to traffic between battle group and division. Therefore, it is not used for lateral communication between battle groups. The procedure to be used by a battle group commander for direct contact with an adjacent battle group commander using his FM radio is:

a. to use the division command/operations net.

b. for the calling commander to enter the command net of the called commander.

c. to use the division intelligence operations net.

d. to use the special net designed for this purpose.

For answers turn to page 60

SOLDIER MANAGEMENT & MORALE

The practical rules offered by General Clarke in this two-part article provide a valuable checklist for establishing a climate of good leadership and followership.

By Gen Bruce C. Clarke

THE subject of leadership is complicated to the theorist. Many and large books have been written on the academic side of being a good leader. Fortunately, the rules are capable of being reduced to a few simple and practical terms. The two short outlines which follow were prepared to do just that. Together they might well be used as a closely related leadership check list which officers and noncommissioned officers can use to an advantage in their units. On looking back upon my experience in the Army serving under many immediate commanders whose ranks have varied through the years from corporal to four-star general, I recall no case where any one of my superiors was able to establish a *climate of good leadership* in his unit if he violated many of the simple rules given here. Conversely, all who observed well the simple rules were looked upon by their subordinates as good leaders. Many of them were outstanding.

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Part I. Soldier Management

from the Viewpoint of the Company Officer

FROM the company officer's viewpoint, soldier management and leadership go hand in hand. The purpose of this outline is to assist the young officer and the senior noncommissioned officer in his everyday problems of handling and managing soldiers.

There were fair, good and outstanding units of all echelons in the past war. Primarily this variation in units was in direct ratio to the qualities of leadership displayed by the unit officers.

Leadership which produces success in battle can easily be adapted to other activities and produce equal or greater success.

What Men Except from Their Leaders

1. Men have a right to expect from their leaders:

a. Honest, just and fair treatment.

b. Consideration due them as mature, professional soldiers.

c. Personal interest taken in them as individuals.

d. Loyalty.

e. Shielding from harassment "higher up."

f. The best in leadership.

g. That their needs be anticipated and provided for.

h. All the comforts and privileges practicable.

i. To be kept oriented and told the "reason why."

j. A well-thought-out program of training, work and recreation.

k. Clear-cut and positive decisions and orders which are not constantly changing.

l. Demands on them commensurate with their capabilities, not too small or too great.

m. That their good work be recognized—and publicized where appropriate.

2. To the military leader, men are tools. He is successful to the extent that he can get the men to work for him. Ordinarily, and on their own initiative, people run on only 35 percent capacity. The success of a leader is measured by the extent to which he can "tap" the other 65 percent.

3. It is the men below who make or break an officer. Sometimes, but not often enough, those above recognize what the ones below do for them in this respect. Regardless of the recognition, the officer should not lose sight of the basic truth.

Some Pointers on Leadership

Some people are natural-born leaders. Others, possessing the ordinary attributes, can be fine leaders through the observation of certain procedures. Some of these are:

1. Almost every man wants to do what is expected of him. When he does not do so, it usually is because he has not been properly instructed. This is the only tenable attitude an officer or noncommissioned officer can take toward his subordinates. He will recognize the exceptions and know what to do about them.

2. Men admire a strict officer if he is also just.

3. An officer who tries to be a "good fellow" loses his grip early.

4. A new officer cannot be easy at first and then get strict. He can, however, be strict at first and then ease off as circumstances warrant.

5. Company and platoon leaders should know every man in their organizations.

6. Men must look to their titular leaders for rewards and punishments. The company commander, himself, must decide who shall be promoted. He can and should accept recommendations, but it must never be thought that he rubber-stamps the first sergeant's list. The company commander personally assesses company punishment, not the first sergeant. He usually does this in the first sergeant's presence.

7. One should be able to select competent subordinates. If the commander makes a mistake in choice, then the man should be replaced. Do not carry dead wood along for fear of admitting an error in selection. Handle your own mistakes; do not pass them along.

8. An officer should not look for cheap popularity with his subordinates. They expect the officer to play his part according to his position. They do not begrudge him his rank, pay, or prerogatives if he uses them in the interest of his subordinates and superiors.

9. Military courtesies start between officers. Observation of these courtesies between seniors and subordinates is not belittling to either; they are evidences of alertness, pride and good manners.

10. An officer can expect the same attention from his men that he gives them—it works both ways.

11. The officer should give orders in a manner which indicates he expects compliance. He should be clear and positive and should follow them up.

12. An officer should not issue orders which he cannot enforce. Along that line, it is a wise officer who refrains from criticism of a situation until he learns the reasons therefor, and can make logical, constructive suggestions.

13. An officer must develop initiative in his subordinates. They learn by doing. In so learning they make mistakes. Learn to underwrite the honest mistakes of your subordinates.

14. An officer must not belittle the importance of his subordinates. He must give them responsibilities and then back them up. A good officer does not by-pass subordinate commanders. He uses his noncommissioned officers and adds to their prestige by so doing.

15. An officer should be as good as

his word. He should not make promises of rewards and punishments he cannot fulfill. He should fulfill those he makes.

16. A good officer will know the names, background and individual characteristics of his men. He must have a genuine personal interest in them or they will not have it in him. Each individual has problems. There is no easier way of getting a grip on men than by helping them to solve the personal problems that give them great concern.

17. Be enthusiastic and cheerful. These attitudes in a leader, as well as their opposites, are contagious.

18. Do not be too familiar with your men. Good soldiers do not expect it. It is not necessary to call your men by their first names or nicknames even if you sleep in the same foxhole with them. Doing so does not increase your leadership ability or your grip on your men.

19. Morale is a natural product of good leadership. Morale is not produced by USO shows, etc. Diversions are important, however. Good morale comes from doing well a worthwhile job and receiving recognition for it. (See "Soldier Morale" which follows.)

20. Every man experiences fear in a crisis. The leader cannot show it. He must fortify himself by building up a scale of values which enables him to control his emotions. The only fear that should worry a good leader is the fear of being afraid.

21. Do everything you can to increase the personal pride of your men. Cleanliness, neatness and orderliness are evidences of personal pride. A proud outfit is a good outfit.

22. When a man has punishment coming to him, be sure to give it to him, but in an impersonal way and to a degree that fits the circumstances and the offense. When he pays his debt, forget the incident.

23. Listen to the suggestions of your subordinates. If they are adopted, pass on the credit to them.

24. Be intellectually honest. An officer cannot be expected to know everything. He cannot bluff his men and retain their respect. When he does not know he should say so.

25. Be loyal. Criticism of your superiors in front of subordinates lays you open to the same treatment. Remember, loyalty works both ways.

26. Rank should be used to serve your subordinates. Rank is not a reward nor a license to exercise your idiosyncrasies. Rank has one object: to enable the officer to fulfill his responsibilities.

27. An officer's presence when the conditions are unpleasant and when the going is tough—"sharing the situation with the men"—is all-important.

28. Above all, set the proper example. Men will look to the officer for their model. The higher the rank the greater the obligation to those below to set the proper example.

Conclusion

Basis of the officer-enlisted man relationship in the American Army. We have heard the charge that the officer-enlisted man relationship is based upon the Prussian system as brought to this country by Baron von Steuben. There is nothing wrong today with the following instructions written by Baron von Steuben at Valley Forge and published by the Continental Congress. It is when we get away from them that we get into difficulties.

"Instructions for the Captain"

"A captain cannot be too careful of the company the state has committed to his charge. He must pay the greatest attention to the health of his men, their discipline, arms, accouterments, ammunition, clothes, and necessaries.

"His first object should be to gain the love of his men by treating them with every possible kindness and humanity, inquiring into their complaints, and when well founded, seeing them redressed. He should know every man of his company by name and character. He should often visit those who are sick, speak tenderly to them, see that the public provision, whether of medicine or diet, is duly administered, and procure them, besides, such comforts and conveniences as are in his power. The attachment that arises from this kind of attention to the sick and wounded is almost inconceivable; it will, moreover, be the means of preserving the lives of many valuable men."

"Instructions for the Lieutenant"

"He should endeavor to gain the love of his men, by his attention to everything which may contribute to their health and convenience; he should often visit them at different hours; inspect into their manner of living; see that their provisions are good and well cooked, and as far as possible oblige them to take their meals at regulated hours. He should pay attention to their complaints, and when well founded, endeavor to get them redressed; but discourage them from complaining on every frivolous occasion."

Part II. Soldier Morale

THE one question most frequently asked by visitors to military units is: "How is the morale?" This question usually leads to a discussion of many things and usually ends in an agreement that the morale is "excellent." I am aware of no commander who ever rated the morale of the men in his unit as anything but "excellent." But I am sure that the morale in some units is "more excellent" than in others.

What is morale? Our manual on leadership defines morale as the men-

tal and emotional state of the individual. As such, it is naturally influenced by many factors.

Although morale is a complex and intangible quality, it must have a solid basis of the following three factors which lead to a general feeling of confidence, well-being and accomplishment. Military leadership and management play a large part in providing the three factors, although the military commander alone cannot provide them all to the full extent needed:

1. Doing well,
2. An important job,
3. And receiving recognition.

During the course of this article I will refer to these elements, but first let's consider the several adjuncts to morale which have an influence on units but which in themselves alone do not produce good morale if the basis of good morale is missing.

1. *Good Management.* We all like to be in a unit where there is good management, where things run smoothly, where things are planned, where men do not have to "hurry up and wait." The basis for good management is prior planning, thorough organization and continuing supervision.

2. *Well Informed.* Men like to be kept informed ahead of time as to things that affect them or are apt to affect them. It is far better for the commander to keep his men informed, than to have them seek to get such information from rumors. Most soldiers enter into training programs and other military activities with vigor and enthusiasm if they know their purpose and the reason.

3. *Well Trained.* This is an important part of the first factor. If a unit is not well trained its men know it. This fact adversely affects their confidence, especially if they anticipate there is a possibility of using that training in a critical situation. Every soldier likes to feel that he is playing on a winning team—he knows he can't win if he isn't well trained.

4. *Chances for Advancement.* Making progress is morale-raising to all men. Knowing that there is an opportunity for advancement and that only excellent performance and preparation lead to promotion in a unit helps the morale.

5. *Good Physical Condition.* Good physical condition goes hand-in-hand with good mental condition. These two elements are basic to achieving good morale.

6. *Good Administration.* Men like to know that the administration in their unit is good, that their pay accounts and individual records are correct, that the date they are due for rotation home will not be overlooked, that their allotments are going through on schedule. These matters are very personal to a man and affect his confidence in his unit.

7. *Confidence in their Equipment.* We are the best equipped Army in the world. There is always better equipment under development than is in the hands of troops. There would be no progress unless that were true. The talking down of our equipment as being obsolete, the statements that we do not have the latest and best are detrimental to morale.

8. *Confidence in their Leaders.* Men expect their leaders to know their jobs, to share the hardships with them and to take a personal interest in their problems. The men like to see their leaders where things are going on—where the weather is bad or the night dark and wet.

9. *Comfortable Quarters.* With a little encouragement men will fix up comfortable quarters under most any condition. They should always be made as comfortable as the circumstances permit.

10. *Good Mess.* The food issued to the American soldier is the best that any army ever received. There is no excuse in the Army for other than a good mess. Where messes are not good, command attention is lacking.

11. *Good Mail Service.* The importance of this should be apparent to all. The soldier counts on his mail—he looks forward with anticipation to every mail call.

12. *Good Medical Attention.* Confidence in the medical service is of tremendous importance to any unit, especially to a combat unit.

13. *Post Exchange Facilities.* The Post Exchange gives the man a source of small necessities and little luxuries so that he can vary the routine of issue items and have some things in accordance with his own wishes.

14. *Leaves and Passes.* A constant and well-implemented policy in such matters provides breaks in routine which are most beneficial. The leave program should be planned so that each individual knows approximately when he is going. He can then plan for it.

15. *Religious Services and Character Guidance.* It is especially important that an Army made up mostly of young soldiers be provided with facilities for religious services in accordance with their preferences and a program of character guidance with a view to continuing in the service the wholesome influence of home and community life.

16. *Awards and Letters of Commendation.* These means of recognition of good work play a most important part in factor three of the basis of good morale. A good commander is ever alert to detect and recognize good work.

17. *Diversions.* There are many important activities that fill up spare time, thereby keeping the soldier pleasantly and profitably occupied and adding to his contentment. Among these are:

   a. Movies
   b. U.S.O. Camp Shows
   c. Dayroom and library facilities
   d. Athletics
   e. Well-equipped hobby shops

18. *Standards.* Soldiers like to be in a "sharp" unit. They appreciate the achievement of high standards in discipline, dress, housekeeping, police, maintenance, training, athletics, etc. The lift in morale that comes from impressive military ceremonies is an important factor.

Most of the various adjuncts to morale are expected by troops as a matter of course. Therefore, the presence of them does not necessarily add to morale, but the absence of any of them is quickly noticed and adversely affects the morale substantially.

In discussing the subject of morale with visitors, I often ask and am asked: "What do you look for in a unit in order to gauge the morale?" Since morale is influenced by so many factors, there are naturally many indications of the state of morale in a unit. The things I look into and note in making a quick size-up of a unit include:

1. *Saluting.* Is it well done? Do the men speak? Do they seem pleased to greet you? Do they come forward to report?

2. *Dress.* Is it uniform, neat, clean, worn smartly?

3. *Good Housekeeping.* Is the area neat, orderly, clean? Are offices cluttered up? Are bulletin boards neat? Are signs clean, neat, uniform? Are barracks neatly arranged? Has there been an effective effort to make the unit attractive?

4. *Pride.* Are they eager to show their accomplishments? Are they eager to point out their history? Do they have something good to sell and try to sell it?

5. *Participation in Charities and Unit Improvement Projects.* These extracurricular activities indicate the unit spirit in an organization.

6. *Athletic Program and Support of their Teams.* An athletic program, enthusiastically supported, on the small-unit level so that many men actually participate, is always a favorable indication of morale as is the support of unit teams in competitions. Competition between platoons is most beneficial.

7. *Church Attendance.* This is a good indicator.

8. *Soldiers Deposits and Other Savings.* A man who is saving his money each month is "banking on his future" and is usually a well-adjusted and confident soldier. When there are many such soldiers in a unit there is a depth of stability in the organization.

9. *Enlistment and Reenlistment Records.* Except where unusual conditions exist, the records of enlistment and reenlistment are good indices of the relative morale in the units.

10. *AWOLs.* Where situations exist to make such offenses on the part of the man reasonably easy to commit, this item is an indicator of morale.

11. *Size of Sick Call.* Unless there are special reasons for it, a continuing large sick call is a danger signal in a unit.

12. *Venereal Disease and Courts-Martial Rates.* These often indicate morale in a unit, but they must be analyzed carefully for extraordinary influencing factors. For example, a very low court-martial rate may indicate not good morale, but a lax discipline.

13. *Incidents and Accidents.* Usually these occur in sizeable numbers only as a result of conditions existing over a period of time which set the stage for them. Because of this, they are an indication of the soundness of the basic structure of a unit which includes the state of morale of its members.

14. *Complaints to the Inspector General.* These come about when men are not well informed and properly handled. Thus, they are an indication of morale.

The factors, adjuncts and indications of morale covered so far have to do with those things that are generally within the ability of military leadership and management to influence. But there are influences on the morale of soldiers, especially those on duty in a far-off land, which stem from attitudes of officials, members of Congress, the press, radio commentators and the public at home. These factors have to do with the last two elements of the basic premise: an important job, and receiving recognition.

It is necessary that the soldier feel that he is needed where he is in an important mission, that his sacrifices are of both immediate and of long-range benefit to his country, his home, his family and himself. He will feel that importance so long as the people at home feel it. He is very sensitive to public opinion at home and, because of good radio, newspaper and mail facilities, is constantly abreast of the attitude at home toward the importance of his job. The "home-town" and other releases by the public information officers play an important part in the attitude at home. Unless the people at home help maintain in him the feeling that he is doing an important job for them, the heart of the basic premise upon which good morale is built is eliminated. Then the several adjuncts to morale cannot fully fill the void regardless of the efforts made.

The third element—receiving recognition—generally follows from the second, insofar as the attitude of the public is concerned. Visits, speeches and actions of officials, articles by newspaper correspondents and contents of letters which the soldier receives from home all affect morale. Because of this, every citizen shares with the military leaders the responsibility for the morale of the service personnel.

The morale of a man in a military organization comes from many factors. It may well be summed up in one word, "confidence"—confidence in his training, equipment, leadership, in himself, in his unit and in the support from home. The military commanders play a big part in it, but so do civilian officials, members of Congress, the press, radio commentators and the general public at home. Together they must insure that the soldier does well an important job and receives recognition for it. So long as this is accomplished there is a general feeling of confidence, well-being and progress in a military unit; and the report which states that the "morale is excellent" will be sound.

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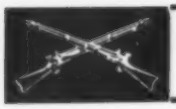


ANSWERS TO QUARTERLY QUIZ *(See page 51)*

Possible score 100 points. Expert 90-100, Sharpshooter 70-80, Marksman 50-60, Recruit 30-40 and Bolo 0-20. For a more detailed discussion of the answers check the references listed.

1. **a.** The weapons squad of the rifle platoon normally moves in column at the rear of the platoon during the movement to the probable line of deployment. Depending on the visibility, the squad may follow the assaulting squads at a specific distance, support the assault echelon, or protect the flanks and rear. The weapons squad should not be so close to the assaulting squad that it becomes involved in close combat; yet, it must be immediately available to support the consolidation. Because of difficulties in fire control, it normally is not advisable to fire machineguns in the assault at night. (Chap 2, Sec XI, par 77c, Advance Sheet, Rifle Company, Infantry Division Battle Group)

2. **d.** Once a tourniquet has been applied, the wounded man should be seen by a medical officer as soon as possible. The tourniquet should not be loosened by anyone except a trained medical person who is prepared to stop the hemorrhage or bleeding by other means and is also prepared to replace the blood volume adequately. Repeated loosening of the tourniquet by inexperienced personnel is extremely dangerous and can result in considerable blood loss and endanger the life of the patient. (Chap 1, par 3a(2)(b), FM 21–11, March 1954)

3. **c.** Water in issue canteens can be easily disinfected with issued purification tablets (iodine). Two tablets are needed for every quart or canteenful of clear water, though four tablets should be used if the water is muddy or off-color. Shake well to dissolve the tablets. In 30 minutes all the bacteria will be destroyed. Then the water will be safe to drink. Halazone tablets are no longer issued. (Chap 3, par 57, FM 21–10, July 1945)

4. **d.** All types of field equipment and vehicles are subject to damage by blast. If peak overpressures are high enough, these items will be crushed. However, the violent winds (dynamic pressures) generated by the detonation are the most destructive part of the blast effect. Radiation has little or no damage effect on materiel. It is most effective against living tissue. While heat will have some effect on equipment and vehicles, the radius of this effect is small in comparison with the radius of the blast effect.

5. **d.** The protective mask should be removed only after a test has been made with the chemical agent detector kit. After determining the absence of gas with the detector kit, two or three men should unmask for five minutes and then remask. After 10 minutes, these men should be examined in a shaded area for constricted pupils, running noses and tightness in their chests. If none of these symptoms occur, personnel may unmask. (Chap 13, Sec II, par 114f(1), FM 21–40, November 1958)

6. **c.** In his planning, the S3 must analyze the dispositions of the battle group with respect to the enemy's known nuclear capability and inform the commander of the risks involved in the various courses of action. This should be part of the analysis portion of his estimate of the situation. (Par 19c(5)(c), FM 101–5)

7. The rates of fire prescribed for the machinegun, 7.62mm, M60, and the number of rounds per minute fired at each rate are:

Sustained	100 rounds.
Rapid	200 rounds.
Cyclic	66 rounds.

8. **a, b, c, d.** This missile can be located at a hidden site in a trench or ravine and controlled by a gunner in a forward position or observation post. The weapon can also be launched from a ¼-ton truck, an armored carrier, or other ground vehicle. The missile may also be mounted on, fired and controlled from a helicopter or a slow-flying, fixed-wing plane. (Article, "Death to the Tank!" by Lt Col Albert A. Merglen, *Infantry* magazine, July-September 1958 issue)

9. **a.** Command maintenance inspections are performed at least annually. Inspection is scheduled as far in advance as possible and is included in the annual master training directive. If a unit has 20 or more major TOE items, 50 percent of these items of equipment will be inspected. When the total number of major TOE items in the unit is less than 20, the percentage of items inspected is increased. (Pars 4, 5, p.223, "Commander's Handbook for Preventive Maintenance," 1957)

10. **b.** The division CG/command net is intended primarily for communication between the division commander and staff and the commanders of all immediate subordinate units. The large number of radio stations in the net dictates restrictions on its use. While specific employment of the net will be governed by the individual division commander's desires, it is expected that lateral radio communication between subordinate unit commanders will be established by the calling commander. (Chap 2, Sec III, par 19c(2), FM 11–10, July 1957)

A Squad with Two Wings

A formation for the fire team will simplify tactics of the squad and give the squad leader better control. The wedge formation suggested here is one possibility.

By Capt James H. Bremer

In 1951 Brig Gen S. L. A. Marshall wrote about the Infantry rifle squad, "As now set up, it does not appear sufficiently flexible and well guided. . . . A squad with two wings, each working under its own leader, but both working toward the same object, is demonstrably capable of stronger action and closer direction than eight men operating under one man. . . . [Such a] squad has balance and flexibility within itself. Either of its wings is ready for semi-independent action. Each can give equal support to the other in fire and movement."

Much has been done toward achieving these objectives. On the other hand, the substitution of the new squad with two five-man fire teams for the old nine-man squad does not alone guarantee optimum flexibility and maximum control in combat. Our squads will not be stronger in the field until doctrine and training reflect the concept of two teams, each working under its own leader. And at this level doctrine and combat formations are inseparable. Our present combat formations have fallen into disuse because of their comparative complexity. Whatever men are expected to remember and use under the strain of battle must be the very essence of simplicity.

If our fire teams are to be capable of semi-independent action, our formations should begin at that level. To begin with, consider the role of the fire-team leader.

He is, presumably, the most aggressive, skillful and experienced man on the team. Our doctrine specifies

Figure 1. The basic wedge formation.

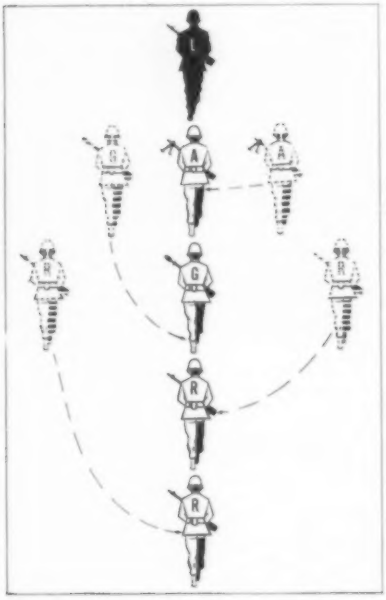


Figure 2. Closing from wedge to single file.

that he will control his men primarily by his personal example as a fighter-leader. He initiates the action and they follow suit. Accordingly, he should be located at the head of his team. He can control his men by example only if they can see him. Also, bear in mind that the leader provides a significant proportion of the team's fire power, especially after one or two casualties.

To hold him to the rear to control the fire of two, three or even four others would measurably lessen the combat power of the fire team.

When there is no time for plans, orders, or even signals, success and survival often depend upon an aggressive and intelligent reaction from the team as a whole. From his vantage point at the front of the team where he could be seen by all of his men, the leader's personal example would suffice to unite the team in effective action. At less pressing times his silent example would serve to set the pace, to indicate the direction of march, and generally to facilitate control.

The two next most important members, the automatic rifleman and the rifle grenadier, should be immediately adjacent to the leader, one on either side of him and both slightly to his rear. Presuming that he is right-handed, the leader, when he takes up a firing position, can most easily control the fire of the man to his right. Consequently this position should be reserved for the automatic rifleman, and the grenadier should be to the leader's left. Of course, this positioning would be reversed for left-handed leaders, and teams in an advanced state of training would be able to switch over at will, depending on the situation.

The two remaining riflemen will in most cases be the less experienced members. Posting them to the rear of, and outside of, the remainder of the team would enable them to observe the more experienced fighters in action and still be in a position to participate actively. One would be the alternate automatic rifleman and the other the alternate rifle grenadier, and as such each would carry extra ammunition and would automatically replace the key men, should they become casualties. In addition, each would be in position to protect his respective flank and the rear.

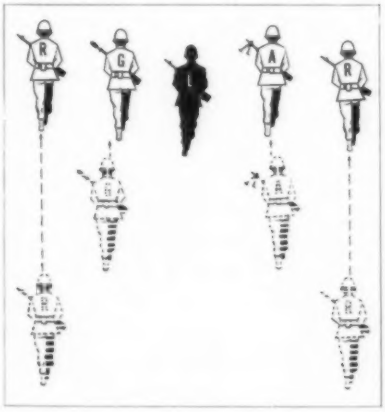
Figure 3. Closing from wedge to column of twos.

Obviously the only formation which allows such an arrangement is the simple wedge (Figure 1). There is certainly nothing new about the wedge formation. It is common knowledge that it permits excellent fire to the front and good fire to either flank, facilitates control and favors sustained effort while, simultaneously providing flank protection. Both Infantry and Armor doctrine presently make prominent use of of the wedge at the platoon level.

Deployed in a wedge the fire team has at once excellent flexibility and effective control. By taking full advantage of its flexibility, the wedge can be used in practically any tactcal situation. It can fold back into a single file or column-of-two's or open up into a small skirmish line (Figures 2, 3 and 4). At first the team leader would use voice and arm-and-hand signals to open and close the formation. As the men advanced in training and became accustomed to working together, they would learn to fit their wedge to the situation automatically.

Although understanding his men as individuals is one of the most im-

Figure 4. Opening from wedge to skirmish line.



portant duties of the squad leader, tactically he could habitually consider his squad as two separate and indivisible fire teams rather than as ten men. The fire team has only one basic formation; the squad needs no more than two. In the column the teams are one behind the other, and in the skirmish line they are abreast of one another. The column or skirmish line is appropriate to practically any tactical situation, providing of course that the team wedges are opened and closed intelligently (Figures 5, 6, 7 and 8). When a skirmish line is needed, the squad leader could move the rear team on line with, and to either side of, the leading team. Ordinarily, when moving into a squad skirmish line, both fire teams would open up their wedges all the way. However, it would be perfectly feasible to keep one or both of the teams closed up to any degree desired and still keep them abreast of each other. The squad leader would have no fixed position within the squad but would post himself wherever he could best control his two fire teams. Normally he would accompany or lead the forward team in the column, and in the skirmish line he would probably take a position between the two teams.

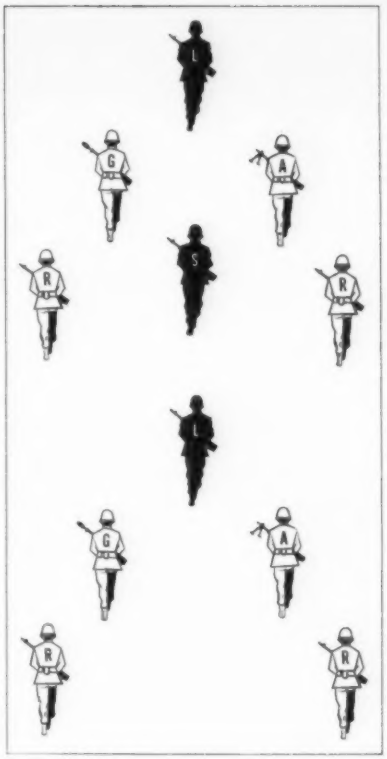
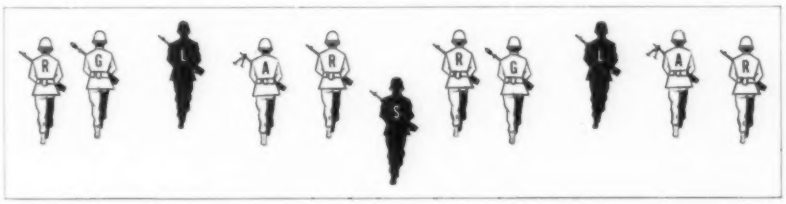
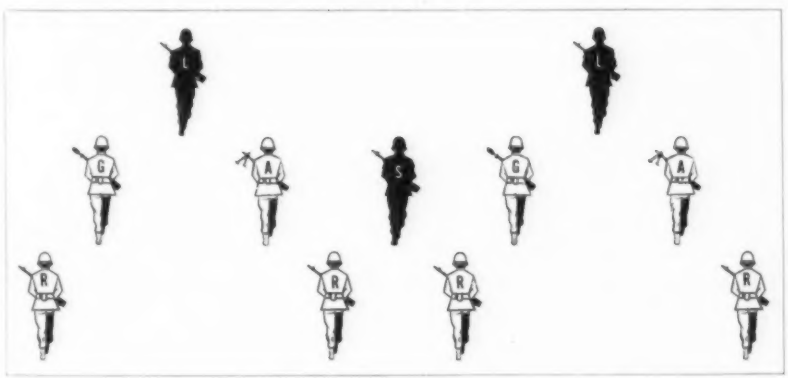


Figure 5. Squad in column of wedges Wedges may be extended or closed according to the situation.

Figure 6. Squad in skirmish line. Bravo Team may be either to right or left of Alpha Team.

Figure 7. Squad with wedges abreast can move quickly into a skirmish line.





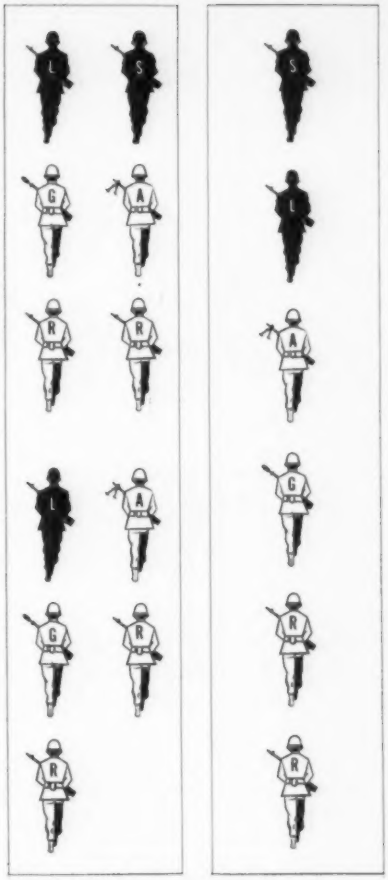


Figure 8. Left: Squad in column of twos, Bravo Team following Alpha Team. Right: Squad in single file showing only the squad leader and Alpha Team. Bravo Team follows Alpha Team in identical order.

Note that no formation is included specifically to provide dispersion, since either the column or the skirmish line can, by increasing the interval between men, opening the fire-team wedges, and increasing the distance between fire teams, disperse the men to any degree necessary. These measures can be taken one at a time, all at once, or in any combination by either one or both of the teams and to the degree called for by the situation. The squad thereby gains flexibility without any loss of its inherent simplicity.

This is not to say that there is no longer any need for a diamond formation. That formation, however, is far better suited to patrol-type ac-

CAPT JAMES H. BREMER was graduated from the United States Military Academy in 1952. Following the completion of the Infantry Company Officer Course and the Basic Airborne Course at the Infantry School he went to Germany, where he served as a platoon leader and as a liaison officer in the 109th Infantry, 28th Infantry Division, and later as a platoon leader in the 28th Reconnaissance Company. When the 28th Division was redesignated the 9th Infantry Division, he served with the 9th Reconnaissance Company, and was later named executive officer of headquarters company, 60th Infantry Regiment. Upon his return to the United States he joined the 2d Battle Group, 101st Airborne Division, where he was a company executive officer, battle group assistant S4 and administrative center chief. Captain Bremer is currently attending the Advanced Course at the Infantry School.

tions than to the approach march or the attack. Troops almost never use a diamond formation in the field unless they have had an opportunity to rehearse it. Normally patrols have time for such rehearsals, but squads in the attack do not. Patrols have a relatively greater need for all-around security, the primary advantage offered by the diamond, whereas the primary requirements of attacking squads are control, flexibility and momentum. Training in the diamond formation should therefore be presented during the instruction on patrolling. The diamond should be considered a patrol formation rather than a squad formation.

The training methods used to teach doctrine are not less important than the doctrine itself. It is not an oversight that the positions of the men within the fire-team wedge have not been given numerical designations. With at most five men per team, there is no reason why job titles cannot replace the numbers that have been used so long and forgotten so often. Soldiers will certainly experience far less difficulty remembering the duties of the "alternate rifle grenadier" than those of the "number four man." And when a rifleman replaces a wounded automatic rifleman he would have no doubt about his proper position within the team.

While the designation of the two teams as ALFA and BRAVO is necessary for convenience and clarity both in training and in combat, both teams should be used interchangeably in the squad formations. For example, ALPHA should not always be to the front of the squad column.

The rifle squad most often attacks as a part of a rifle platoon, and the proposed combat formations were developed with this in mind. Consequently, combat training should progress from individual skills to fire-team training and thence to squad training and finally to platoon exercises. Only then should the idea of one squad independently attacking a small objective be presented as a not-too-rare case. Such an attack would involve the use of battle drill as now taught, and the proposed formations are equally well adapted to this phase of training. A simple, easily remembered name for each maneuver in our battle drill would probably facilitate training.

These recommendations represent the conclusions of one Infantry captain, drawn after about five years of studying rifle squads, although never in combat. Perhaps my conclusions oversimplify a vital problem. They are based, however, on the assumptions—borne out by comprehensive battle reports—that some system of close combat formations is necessary, that only a truly simple system will prove workable, and that the system should feature fire team leaders who really lead. This proposed system should materially reduce training time, provide for quicker, more positive actions in combat, break in replacements more easily, and function more smoothly at reduced strengths than the system we now use.

BACK ISSUES OF INFANTRY AVAILABLE

The Book Department has a few back issues of *Infantry* which are available for $.25 each on a first-come-first-served basis. Three of these issues, July and October 1957 and January 1958, contain a total of more than 120 pages of valuable material on the ROCID organization.

Some issues have been completely sold out but small quantities of the following are available: April, July 1952; April, July 1953; April 1954; April, July, October 1955; January, April, July and October 1956; July, October 1957; January, April-June 1958.

Also available are a few copies of the first three large-format issues. These are available at $.50 per copy. If you are a new subscriber you will want these issues to complete your file of the new, larger *Infantry*.

WRITE: BOOK DEPARTMENT, UNITED STATES ARMY INFANTRY SCHOOL, FORT BENNING, GEORGIA.

THE SOUNDING BOARD

This regular feature gives Infantrymen a chance to "sound off" on a wide variety of subjects. It provides an outlet for thinking which need not conform to doctrine. We are looking for constructive ideas—well-conceived and concisely expressed—which challenge or inform. Articles will be paid for at regular *Infantry* rates.

The Infantry Needs Mobility-Not Armor

By Capt Harold J. Meyer

TREMENDOUS advances in firepower, both nuclear and non-nuclear, require that the Infantry make similar advances in the vital counterpart of firepower—mobility. The effectivness of Infantry on the modern battlefield will be predicated on its ability to mass and disperse its forces rapidly.

In matching increased firepower with greater mobility, we should keep in mind a maxim of Napoleon: "The strength of an army, like momentum in mechanics, is estimated by the weight multiplied by the velocity. Therefore, where mass is constant, increased mobility can serve to increase strength (or effective mass) by providing the wherewith to quickly concentrate mass at a critical point or to shift mass from one point to another."

The historical 2½-mile-per-hour foot mobility of the Infantryman will not permit him to capitalize on today's firepower. He must have faster means of movement over the battlefield. The present state of the art dictates motorized, cross-country mobility in the form of personnel carriers and weapons platforms. In the future he will require more advanced means. And, since this mechanized mobility will be so essential to his combat operations, he must be concerned with the weight and design of these vehicles.

The thinking Infantryman asks the question, "Do we need armor protection on Infantry carriers?" What the Infantry really needs is a vehicle which will deliver the combat-ready soldier and his weapons to a point of decision in the shortest possible time and with the greatest flexibility. While the purpose of the relatively thin-skinned armor-plating on current and proposed carriers is to provide protection for the passenger against small-arms fire and low-velocity artillery fragments, and while this same armor also gives some protection against nuclear effects, are these overriding considerations?

Steel and even aluminum plating adds considerable weight to the carrier and reduces its velocity—reduces its speed and trafficability, reduces its airlift capability, increases its cost, and by increasing fuel consumption reduces its range. Since protection for the passenger varies according to the thickness of the plate, we can expect requirements for heavier armor due to the increased muzzle velocity and penetration capabilities of current and projected small arms, and to the increasing potency of artillery.

Some Infantrymen feel that greater mobility, increased air-transportability, more flexibility, less fuel consumption and similar advantages are the primary considerations in the design of the Infantry carrier. While there may be occasions on the modern battlefield when the mounted Infantryman will be able to sweep over the objective and accomplish his mission without dismounting, it is not the purpose or function of Infantry to fight from an armored "fighting" vehicle. To attempt to protect such a vehicle from the kind of direct fires which an armored fighting vehicle is bound to attract would require heavy armor plate and the vehicle would end up a tank. The Infantryman's fundamental role, irrespective of how he moves over the battlefield, is to dismount and fight on the ground. Why waste material and effort in attempts to achieve protection which doesn't really protect and sacrifices the very capabilities the Infantry seeks?

Many Infantrymen believe that a reasonable and satisfactory degree of protection can be obtained without the use of armor. The Infantry carrier must be designed to avoid hits, not to accept them. Our own increases in firepower, coupled with greater speed, lower silhouette, increased maneuverability and proper tactical doctrine will provide acceptable protection against the small-arms and artillery fire to which the Infantryman has always been subjected anyhow. For those who still insist on additional shielding, possibilities are offered which would not add significant weight to the carrier. We could provide the individual soldier with body armor. This would give him some protection when he dismounts. However, such body armor could be left on the carrier if

not needed or if it hampers his ability to fight. Another possibility is the development of lightly armored blankets or covers which could be used both on the carrier and on the ground, for the protection of foxholes and emplacements. Still another possibility would be light, armored shields which could be slipped into slots or otherwise attached to the carrier when such protection is considered essential. And, of course, there is always the possibility of making a concentrated effort on the development of a really lightweight substitute for armor.

Those who insist on armor for protection against nuclear effects also overlook certain facts and possibilities. Under normal conditions the Infantryman is not likely to move directly over *ground zero* of a nuclear strike in any kind of vehicle. With the increased speed and maneuverability of light carriers, however, he will be better able to skirt the area directly under the burst and to move rapidly through or outside areas of serious fall-out. Also, with proper dispersion and tactical employment, which would be facilitated by its increased capabilities, the lighter carrier would be a fleeting target for enemy nuclear weapons. Protection against flash and heat would be more economically provided by proper clothing and by protective measures which can be taken by the individual. We simply cannot afford the weight and sacrifice of capabilities imposed by armor for these purposes.

Efforts are being made, with some success, to take some of the load off the Infantryman's back. Now is the time to lift the weight of armor from the Infantry carrier. We cannot subscribe to armored vehicles which will limit the Infantry's capabilities on the modern battlefield.

CAPT HAROLD J. MEYER enlisted into the Army in 1943 and graduated from OCS in 1945. He served in the European Theater of Operations until 1946, when he left active service and joined the Ohio National Guard. In 1948 he returned to active duty, first attending the Armed Forces Information School and then serving with the 26th Infantry Regiment of the 1st Division. He was subsequently assigned to duty as assistant PMS&T at Kent University, Kent, Ohio. Captain Meyer was graduated from the Advanced Course at the Infantry School in 1956 and later joined the 24th Infantry Division in Korea. He is presently Assistant Operations Officer with the Weapons Department of the Infantry School.

Call Your Own Fire

By SSgt Ben Moskowitz

A COMMON problem which Infantrymen have encountered over the years has been a lack of artillery support when and where it was most needed. As likely as not, the lack of fire was not due to the unavailability of support. Very possibly it was due to the fact that no fire had been called for, and very possibly no fire had been called for because no one on the spot at the time knew how to do so.

Such a possibility looms even larger in the pentomic Army. Mobility and rapid movement are keywords, but if you lose your artillery forward observer or liaison team in a quick move, you just about lose your artillery support as well. A good many Infantry officers and NCOs can effectively call for artillery fire, and the loss of the FO, while keenly felt, shouldn't necessarily cripple the company or the battle group. But there is no getting away from the fact that not all Infantry officers—and very few Infantry NCOs—really know how to call for fire.

This lack of training isn't the soldier's fault, and it isn't the S3's fault. The plain truth is, as we all realize, that since Infantrymen aren't in the artillery business, they tend to consider a thorough knowledge of such matters none of their concern.

Since the chance of your losing the FO is extremely high—and may become even higher—it is clear that Infantrymen need this training. The proper methods of calling for fire should be carefully instilled in Infantrymen, particularly in the senior noncoms and junior officers. It is not enough merely to raise your supporting artillery units on the radio or telephone and tell them where you are and what you face in the way of enemy. You must be quick and you must be sure—and this takes training.

Why all this emphasis on proper methods of requesting fire? The reason, of course, is that laying in upon a target can be a rather complex process. Adjusting the piece involves such things as "site," weather, desired height of burst, deflection, elevation and fuze. This job, when performed by a trained gun crew and fire direction center, takes a minimum amount of time, but unless the crew and the FDC are prepared beforehand with stock corrections for a given target area, it is rarely less than five or six minutes before a round can be put on the way to the target. If the target is called incorrectly, we risk casualties among our own troops and that time is wasted. Since those five or six minutes can be crucial to the Infantryman, it behooves him

to know *how* to be accurate—and to *be* accurate—when calling for fire support.

Furthermore, methods of calling for fire, like voice communication procedures, are standard among the three services and among the NATO nations (artillery FOs can call for fire from the Navy as easily as they can call for fire from a 105 battery). Because of this standardization, variations in the correct methods of calling for fire are apt to cause confusion. And as any Infantryman who has ever been shelled by friendly artillery fire knows, confusion in the FDC can be mighty uncomfortable if not fatal—to himself.

Actually there just isn't too much to learn about calling for fire that the Infantryman doesn't know already or can't pick up easily and quickly. First off, he must know the types of ammunition available (HE, HEAT, smoke, WP, illuminating) and their particular advantages. These he should be familiar with from his experience with Infantry heavy weapons. Also, he must be able to judge distance accurately. This he should also know from his Infantry training. And he should already know good voice communication procedure. A few things he may have to learn are the advantages of the different kinds of artillery fire, such as salvo and volley fire, and—what is important for the effective employment of artillery—the various types of fuzes available, along with their advantages and disadvantages.

How can arrangements be made to have these things taught? One approach is to call on division artillery. My own experience in an Infantry division indicates that the Artillery is always more than happy to conduct classes in observation of fire for Infantrymen, especially during the unit training phases when training schedules are somewhat flexible. Better still, the battle group commander should have to go no farther than his heavy mortar platoon for trained officers and NCOs to conduct these classes.

Any such program of instruction must be stripped of frills and bits of useless information that tend to detract from the essentials. It is enough for the student to learn the amount of fire he'll be provided and to understand that this is decided at the FDC based on the target information he provides. He doesn't have to be bothered with the tactical or logistical reasons why the FDC makes this decision. He doesn't have to learn how an FDC operates—merely that the information he provides the FDC must be as accurate as he can provide. He needn't be taught to convert angles to mils, for the FDC will understand that someone other than an Artilleryman is calling for fire, and will make this correction for him. However, he does have to be taught that his angle measurements must be extremely accurate to compensate for the larger error factor at the greater ranges of artillery. And of course, he must learn the importance of speed and sureness, and that one must not be sacrificed at the expense of the other.

By knowing how to work with artillery fires in normal circumstances, and how to call for accurate artillery support when no one else can, Infantrymen will be surer of getting the fires they need—when and where they need them.

SSGT BEN MOSKOWITZ enlisted into the Army in 1951. After duty with Port Operations at the Sondrestrom Air Force Base in Greenland, he was assigned to the Joint United States Military Mission to Thailand. Subsequently he served with the 3d Infantry Division at Fort Benning and the Army Reserve Center in Norfolk, Va. Sergeant Moskowitz, a frequent contributor to military publications, is now assigned to the 15th Artillery of the 2d Infantry Division at Benning.

Who Will Command the Infantry in 1965?

By Lt Col Grat B. Hankins

THERE is a serious flaw in the current career pattern for Infantry officers. Unless something is done about it, we may find relatively few Infantry officers with command experience above company level by 1965.

Replacement of the regiment by the battle group, and elimination of the Infantry battalion in the ROCID division, limits the Infantry officer to staff duties throughout his service as a major and lieutenant colonel. In peacetime, this approximates a span of 14 years without opportunity to receive a command assignment.

On the other hand, the reorganization has had no such effect on command opportunities for officers in other branches. In fact, the ROCID organization actually enhances the career picture for these officers as compared with their Infantry contemporaries. Officers of several other branches are provided command opportunities at company or battery level, at battalion level and at group level. Since great emphasis is placed on command experience in the selec-

LT COL GRAT B. HANKINS was commissioned in the 115th Infantry, 29th Infantry Division, Maryland National Guard, in 1941 and served with the Division throughout World War II. While with the 115th, he advanced from platoon leader to battalion commander. In 1944, he became Assistant G3 of the Division. Returning to the United States in 1946, he was assigned as an instructor with the Maryland National Guard and then was ordered to the Office of the Assistant Chief of Staff, G1, Department of the Army. He then attended the Command and General Staff College after which he served with the Military Assistance Advisory Group in France. He is now chief of the Plans Section of the Special Subjects Department at the Infantry School.

tion of officers for early promotion, promotion to general officer rank, key assignments and other important career advancements, it is apparent that an Infantry officer above the grade of captain will be at a disadvantage in competing with his contemporaries in other branches. In short, it must be recognized that other branches now provide a better career pattern.

The impact of this situation is not readily apparent today. The Infantry still has many officers who received command experience under the old organization in both World War II and Korea. By 1965, however, we will have a very different picture. Eight years will have passed since an Infantryman commanded a battalion and the current list of command experienced officers will have been depleted by retirement and attrition.

It may be claimed that the battle group executive officer gets command training. This is true to a degree, but certainly not to the same degree as a battalion commander. Furthermore, the executive officer in peacetime is so frequently used for courts, boards, inquiries, extended TDY assignments, umpiring and maneuver control that the actual command training he receives is severely limited.

The basic problem confronting the Infantry officer is that of maintaining proficiency in command techniques during the long period of time he serves in the grades of major and lieutenant colonel.

The most desirable solution from a career-pattern standpoint would be to reestablish the battalion echelon in the Infantry. This, however, may defeat the purpose of its elimination, i.e., obtaining faster reaction to orders by reducing the number of intermediate headquarters involved in their transmission. Furthermore, we cannot expect our combat organization to be governed by a career pattern. Other solutions must be found.

A partial solution which may merit exploration is to authorize the rank of lieutenant colonel for the battle group commander, major for the battle group executive officer, and colonel for the brigade commander.

The flaw in our current Infantry career pattern is a serious one. While the weakness will not become fully apparent until we lose the field-grade officers who commanded battalions and regiments under the triangular organization, the young Infantryman who looks ahead a few years is genuinely disturbed by the reduced possibilities for command above company level. We can't wait to improve the Infantry career pattern until almost all Infantry officers of field grade lack command experience. We must do something about it now.

The recently announced addition of a deputy commander for the battle group (lieutenant colonel, MOS 1542) may help a little.—Editor.

The opinions expressed in these articles do not necessarily reflect official thinking of the Infantry School.

WHERE IN THE WORLD ARE YOU?

It's a small world — until we try to follow an *Infantry* subscriber who has forgotten to send us a change of address. We'll move heaven and earth to locate you, no matter where in the world you go. But you can help. When you go globe-trotting, your first step should be to drop us a note to let us know where you are. Write:

***INFANTRY*: BOOK DEPT., U. S. ARMY INFANTRY SCHOOL, FT. BENNING, GA.**

YOUR INFANTRY CAREER continued from page 7

Selection for promotion will be made on a best qualified basis. Non-selection is not a pass-over as such and will not be a bar to future consideration for promotion.

Concurrently with the convening of this selection board, all *unit* USAR lieutenant colonels who meet lesser time in grade and total commissioned service requirements, and who are recommended, will also be considered. Personnel in this category will be considered to fill vacancies in USAR units.

Notification to individuals will be made shortly after the adjournment of the board.

Appointment of USAR Officers

Area Commanders are authorized to accept and process applications from eligible individuals for appointment in the USAR without concurrent active duty. Such appointments are made to fill an appropriate position vacancy in a USAR unit. Prior to appointment in Chaplains Corps, JAGC, Army Security, Military Intelligence, Staff Specialist or Civil Affairs/Military Government, approval by Headquarters, Department of the Army, must be obtained.

With the exception of OCS and ROTC graduates, and participants in the Senior Medical-Dental Program, all appointments with concurrent active duty are made or approved by Headquarters, Department of the Army. The provisions of Paragraph 15, AR 140–100, as changed, apply to these types of appointments and are only made where there is an active Army procurement program.

It should be pointed out that omission of information on the application or supporting papers causes undue delay. Care should be exercised to insure that DA Form 398, Statement of Personal History, is completely filled out. Omission of conviction by civil or military court reflects on the integrity of the applicant. Care should be taken to enter all offenses and, if doubt exists, legal counsel is suggested.

Processing of applications takes time and unless an unusually long lapse occurs, follow-up action on the status of an application should be carefully weighed before submission.

Appointment of Warrant Officers — USAR or AUS

From time to time programs are announced for appointment as warrant officers to fill active Army requirements. Such appointments are made in the USAR for the most part, with some being made in AUS when the applicant is already a Reserve commissioned officer serving in an enlisted status.

While satisfactory completion of a service school course is of utmost importance in considering applicants, completion alone does not guarantee appointment. The large number of applicants who have completed a particular course far exceeds the number of warrant officer vacancies in the active Army. In addition, there are many vacancies for school-trained personnel in enlisted grades.

Competition among applicants is keen and only after careful evaluation is appointment denied. Applicants nearing voluntary retirement may be disapproved for appointment because of the short period of remaining service. Applicants cannot enter into any agreement to remain in active service for a specified period of time if appointed. Many factors preclude entering into such an agreement, such as less desirable overseas areas, fluctuation in authorized strengths of the active Army, etc.

Army Reserve Aviation Officer Training Program

The Army Reserve Aviation Officer Training Program continues to expand. Eligible officers who wish to qualify as aviation officers may apply for Army flight training. The training consists of three phases: basic flight instruction of approximately 18 weeks at Camp Gary, Texas; tactical flight training of approximately 10 weeks at Fort Rucker, Alabama; and instrument training of approximately 8 weeks, also at Fort Rucker. Upon successful completion of the Aviation Tactics Course, graduates will be designated Army Aviation Officers, MOS 1980 (Fixed Wing Aviator), and will be required to participate in regular and frequent aerial flights. The instrument training is optional, but aviators who complete this phase of the training qualify for the Army Instrument Card.

Previous flight training is not a prerequisite for Army flight training. To be eligible, an applicant must be a commissioned officer in an active Reserve status, meet Class I physical standards for flying, and volunteer for the training. Applications should be submitted through Reserve channels to the Department of the Army in accordance with provisions of AR 611–110. Reserve officers who are serving on active duty either as officers or as enlisted men are not eligible for this training.

Mobilization Designees

The Department of the Army has an established program for the selection and designation of Army Reserve officers not on active duty, either in commissioned or enlisted status, to fill certain key augmentation positions authorized in mobilization designation tables of distribution listed in the Army Reserve Troop Program. During mobilization, functions of certain active Army table of distribution units are expanded, resulting in a requirement for additional key personnel not readily available on active duty. Reservists selected for such assignments must be available for recall to active duty during the first three months of mobilization.

Army Reserve officers in an active status who possess scientific, technical or highly specialized knowledge, and are otherwise qualified, may request assignment to a mobilization designation position through appropriate Reserve channels. Officers who are selected are required to participate in active-duty training for a 15-day period

annually in order to maintain proficiency in their designated assignments.

USAR Research and Development Program

The Department of the Army is encouraging qualified reservists who are not on active duty and who possess professional and scientific backgrounds to participate in the USAR Research and Development Unit Program. This program is designed to maintain useful affiliation with the Army Reserve of personnel who are professionally qualified to engage in research and development. The program will provide peacetime assignments and mobilization designations which will enable maximum utilization of the professional and scientific competence of individuals in research and development activities within the limitations of military requirements and policies, and will adequately prepare these individuals for mobilization.

Qualified individuals, including reservists of other services, may be assigned or attached to presently organized research and development units or to new units which may be organized in geographical locations where there are at least 10 qualified individuals who desire to participate in the Program. To be eligible for assignment or attachment, an applicant must possess at least a bachelor's degree from an accredited college or university, and be qualified to engage in a professional capacity in research and development work.

Applications should be submitted on DA Form 2074 to the commanding officer of a USAR Research and Development Unit, or to the U. S. Army Corps (Reserve) or U. S. Army military district if there is no appropriate unit yet established.

SCHOOL LISTS 1959-1960

The following Infantry officers have been selected to attend service school courses for FY 1960. All current lists are shown except the Infantry Officer Advanced Courses at the Infantry School. These will be published later.

National War College

COLONELS
Blakefield, William H.
Collins, Kenneth W.
Finn, John M.
Koster, Samuel W.
Lindner, Kenneth R.
Long, Glen C.
McCaffrey, George W.
Middleworth, Henry V.
Roecker, Frederick C.
Rosson, William B.
Ward, Donald R.
Williamson, Ellis W.

Industrial College of the Armed Forces

COLONELS
Crownover, Robert L.
Witter, Vincent M.
LT COLONELS
Guerin, Vincent C.
Nathan, Aubrey P.

Army War College

COLONELS
Ballard, James L., Jr.
Balliett, Howard D.
Barney, John C., Jr.
Besson, Robert
Black, Edwin F.
Crosby Ralph D.
Dickson, Donald D.
Edwards, Bob E.
Fraser, Powell A.
Homan, Sammie N.
Kirkbride, Max V.
Kolb, Roland L.
Maixner, Harold V.
Maness, Lewis E.
Mendes, Louis G., Jr.
Mitchell, Burt L., Jr.
Purdy, William A.
Sage, Jerry M.
Sedberry, George R., Jr.
Stillman, Richard J.
Summers, Robert R.
Wallace, Kenneth W.

LT COLONELS
Baden, Clyde H., Jr.
Boggs, Adelbert D.
Bolton, Donnelly P.
Brown, John P.
Canella, Charles J.
Coleman, William S.
Conaty, Francis S., Jr.
Comny, Joseph B., Jr.
Cowan, Alvin E.
Cross, Thomas R.
Doupe, Robert L.
Drye, Clarence W.
Duddy, Robert R.
Dwan, John E., 2d
Eney, John K.
Greenwalt, William J.
Hickman, Don R.
Jones, Bruce B.
Kapp, Ronald A.
Kendrick, Robert C.
Laughlin, Virgil V.
Logan, Edward O'N.
McGregor, Edward W.
McKnight, John T.
Milloy, Albert E.
Naughton, Francis E.
Rogers, Bernard W.
Smith, Albert H., Jr.
Smith, Anderson Q.
Ugalde, Jesse G.
MAJORS
Daniel, Charles D.
Hennessey, John J.

Navy War College

COLONELS
Acuff, John N., Jr.
Hicks, Herbert C., Jr.
LT COLONELS
Callaway, John W.
Kellett, Donald T.

Air War College

LT COLONELS
DeReus, Clarence C.
Herrington, Jay W.
Kehe, Arlin J.
Singlaub, John K.

Armed Forces Staff College

Bagley, James C.
Burdell, Frank E., Jr.
Jackson, Charles A.
Restani, Raymond
Romstedt, Gerhart O.
Rosoff, Martin
Tisdale, Tyron E.
Webster, Raymond S.

MAJORS
Carter, Doniphan
Daugherty, Robert M.
Herbert, James A.
Hill, Benjamin H.
Hodson, Fremont B., Jr.
Long, William F., Jr.
Mace, John S.
McClellan, Stan L.
Mulhern, John F.
Powers, John J., Jr.
Tyson, Charles M.
Zook, William E.

Command and General Staff College

LT COLONELS
McCullar, Francis M.
Newell, Roscius C.
Welch, George P.

MAJORS
Adkins, Walter R., Jr.
Anderson, Charles W.
Bailey, James
Bland, George E.
Braim, Paul F.
Brenner, John A.
Buckley, Harry A.
Burley, Roy W.
Butler, Olva B.
Clarke, Carter W., Jr.
Coggins, Clyde A.
Cortez, Clyde A.
Cosby, Warren G.
Douglas, James S.
Edmunds, Joseph A.
Ellett, Charles C.
Elliot, Pat K.
Ellison, Paul P., Jr.
Etchemendy, Leon
Fell, Thomas F.
Geer, John C.
Geraci, John P.
Giboney, Thomas B., Jr.
Gibson, Floyd S.
Goldes, Joseph A.
Gregory, Arthur P.
Gruenther, Richard L.
Hisaka, Masakatsu
Hornstein, David H.
Hussey, Stanley J.
Kelley, Eugene, Jr.
Kennedy, John L., Jr.
Kerr, Edwin B.
King, John E.
Knudson, Wade E.
Kotzebue, Albert L.
Lambert, Robert O.
Lavite, Anthony, Jr.
Lehman, Raymond G., Jr.
Leonard, Robert W.
Limpus, Charles E., Jr.
Lober, William J., Jr.
Long, Eldredge R., Jr.
Longbotham, Ralph M., Jr.
Love, Joseph B.
MacKinnon, Robert N.
Mahone, Worthington M.
Meadows, Byron D.
Middleton, Troy H., Jr.
Nielsen, Carl H.
Nix, James H.
Olney, Gregory L.
Park, Joseph D.
Ponder, Lewington S.
Pooley, Nardeth W.
Posich, Lewis V.
Prater, Robert M.
Rawls, Louis T.
Reese, Robert M.
Rheault, Robert B.
Rhodes, Clifford D.
Roberts, Donald L.
Rock, Fairfield
Rolfe, Richard L.
Russell, Robert C.
Saxby, Edward S.
Scharth, Otto P.
Senechal, Jack F.
Sieber, Charles F., Jr.
Sine, Robert R.
Stevens, Carlton E., Jr.
Stiles, Lester W.
Sunski, Chester F.
Taylor, Raleigh O.
Tierno, Ralph T., Jr.
Tolar, Robert A.
Tumlinson, Jack M.
Veaudry, Wallace F.
Ward, Richard H.
Ware, Thomas A., Jr.
Webber, Kenneth E., Jr.
Whalen, Thomas F.
Wilkin, John M.
Winkeller, Herbert B.
Wolaver, Harold D.
Zilian, Carl M.

CAPTAINS
Allen, Edwin W., Jr.
Anderson, Richard L.
Bashore, Boyd T.
Baumann, Lewis R.
Baxley, William J., Jr.
Bayard, Louis P.
Bell, Clyde B., Jr.
Biglione, Normand J.
Bishop, Bertram J.
Blake, Thomas B.
Bradley, William J., Jr.
Buchanan, Crawford
Buck, James H.
Burke, Lloyd L.
Burns, James R.
Bush, Leonard R.
Carlson, Carsten D.
Cerrone, Michael J., Jr.
Converse, Stanley P.
Coyle, Marcus W.
Dashiell, John C.
Diaz, Victor F.
East, Charles M.
Ellis, Calvin W.
English, Allan J., Jr.
Floyd, Harry A.
Forrest, John F.
French, Harry W.
Garner, Francis
George, Jack M.
Gibbs, Cyrus L.
Giglio, Rudolph F. L.
Hale, Richard E.
Hall, Reginald W.
Hanlon, Charles W.
Hanna, Mark J.
Harris, Audley C.
Hilmar, James E.
Johnson, James H.
Jones, Hugh H., Jr.
Kavanaugh, Martin J.
Kingston, Robert C.
Kovalsky, Michael
Lee, Myron E., Jr.
Legg, Elbert E.
LeGro, William E., Jr.
Lewis, John L.
MacNeill, Francis W.
Mallett, Charles S. T.
McGarity, James M.
Messinger, Lucien E., III
Mewborn, Needham P.
Meyer, Edward C.
Morley, Leonard A.
Murphy, Paul J. B., Jr.
Nicewander, Dennis R.
Nolan, John M.
Norman, William C.
North, Louis J.
Okawachi, Toru M.
Ondishko, Joseph J., Jr.
Oxford, William B.
Pence, Authur W., Jr.
Pendleton, Elmer D., Jr.
Philips, Robert H.
Phillips, Y. Y., Jr.
Procter, Gilbert, Jr.
Puckett, Ralph, Jr.
Quarstein, Vernon A.
Robinson, Norman L., Jr.
Rogers, Richard C.
Romano, Frank, Jr.
Russell, Carl K.
Scandling, John D.
Scovill, Thomas M.
Shank, Richard G.
Smith, Charles A.
Smith, Wilfrid K. G.
Smithers, Samuel W., Jr.
Stauffer, Joseph R.
Steele, Robert L.
Steele, Sidney R.
Stogsdill, Charles H.
Story, Robert P.
Swett, Trevor W., Jr.
Tallman, Richard J.
Tavzel, Harold S.
Thams, Robert W.
Tierney, William P.
Tracy, George W.
Unger, Guinn E.
Verhey, William J.
Wallace, Bruce E.
Walsh, John J., Jr.
Walton, John M.
Watters, Clarence M.
Whitelaw, Robert E.
Whitesel, William M.
Wilmot, Fred W.
Wilson, James R.
Yadon, James C.
Yow, Harold D.
Zufelt, Dick

Naval War College C & S Course

Maj John W. Kiely

Marine Corps School (Senior Course)

LT COLONELS
Sullivan, John F.
White, Wolfred K.

Air University C & S Course

MAJORS
Armstrong, John R.
Kingston, Joseph P.
Lee, James M.

British War College

Col William E. DePuy

Canadian War College

Col Robert E. Connor

Australian Staff College

Capt John C. Lippincott

British Staff College

MAJORS
Collins, Joseph E.
Forrester, Eugene P.

Canadian Staff College

Capt William R. Richardson

French Ecole D'etat Major

Capt Frederic Ackerson

Pakistan Staff College

Capt Adrian S. Cloninger, Jr.

Spanish Staff College

Theodore A. Seely, Jr.

Continued from page 26

Why Don't We . . .

. . . make the AN/PRC-6 easier to carry? Despite its excellent characteristics, the AN/PRC–6, for its size, is one of the most uncomfortable pieces of equipment to carry in the Infantry. Why don't we design a truly comfortable sling which will keep the AN/PRC–6 out of the crook of your arm while marching and still leave both hands free? Presently, some Infantrymen strap the radio across their back and utilize a speaker hand-set clipped to the helmet. However, such a hand-set is not always available. Others loop the sling around the neck and position the radio so the earpiece is close to the ear. This arrangement is not too stable and requires frequent adjustment. Still other Infantrymen carry the set in the sling position using empty bandoleers. The sling must be tied with a slip or bow knot so that the radio can be put into action rapidly.

Even though the AN/PRC–6 may be replaced, we will have to live with it for quite a while yet. With a little ingenuity a sling could be developed and the set could be designed so that it could be operated comfortably with one hand.

Lt William R. Perry

. . . develop realistic training ammunition? Live-fire exercises are unrealistic because of the many safety precautions which must be taken. Also, field firing targets cannot take the place of live targets. Why don't we develop a new training ammunition and an adapter for our small arms so we can fire at individuals at ranges of one to five hundred meters without causing serious injury. The projectile should be filled with some type of non-injurious colored liquid or dye which will stain a uniform upon impact but which can be removed by laundering. Personnel participating in such training would wear some type of face and head mask to prevent injury from the projectile.

Such a system would be invaluable in teaching individual soldiers and small unit leaders the principles of sighting and aiming, cover and concealment, fire and maneuver, etc., against live targets. It would add needed realism to our training.

Capt Stanford R. Wilson

. . . develop a wash and wear combat uniform? Most Infantrymen who wear the fatigue uniform are required to have it clean, pressed and heavily starched. Obviously our Army in garrison should present a neat, clean appearance. However, it is unrealistic to require or encourage men to wear starched clothes during training or while performing housekeeping duties.

The soldiers should be able to maintain their own combat uniform. Yet most men haven't the time, facilities or ability to wash, starch and properly press their fatigues. They must pay to have it done either by Quartermaster Laundry or by a civilian laundry. The cost is sizeable.

Capt Mark C. Rhoads

. . . develop a real "fatigue" uniform? Most commanders at all levels of command require the present fatigue uniform to be highly starched and neatly pressed.

When the soldier is engaged in fatigue-type details or in training, he is reluctant to participate vigorously because his appearance will be substandard the remainder of the day or because he hopes to stretch another day's wear out of the uniform.

The average soldier cannot turn out a uniform that meets the standard demanded by commanders. Thus he is required to spend 50 cents or more each day to insure an acceptable appearance. A small amount of arithmetic shows that in a two-week period the soldier spends a sum equal to the original cost of the uniform.

Why can't we develop a "drip-dry" fatigue uniform which will look good with no starch and little or no pressing? The design might be along the lines of the "bush jacket."

Capt Herman H. James, Jr.

...expand the functions of the Self-Service Supply Center to include issue and turn-in of all classes and categories of supply? With modification of the present system, non-expendables as well as expendables can be handled through the self-service system. This would require increasing the scope of the Supply Center to include the processing of all items of supply (a department store in comparison to the present five-and-dime). Reins would be placed on the purchaser to restrict his non-expendable item procurement to items which he is authorized. This could be done by requiring the purchaser to present an approved requisition. The Supply Center would also act as agent to receive items for turn-in. In the case of items turned in for salvage and replacement, the Center would issue a like item. It would also issue items upon evidence of report of survey, statement of charges or statement of collection process. Administrative restrictions would be imposed in garrison to insure supply economy. Such a system would closely relate combat and garrison supply procedures. It would permit immediate replacement or issue of needed items and lead to stock economy.

Capt L. W. Dyment, Jr.

Throughout history, there has been one element which has invariably decided the success or failure of battle—the ground combat soldier. On any battlefield of the future when the air and artillery bombardment lifts you will see, silhouetted against a rising, tell-tale mushroom cloud, the ground combat soldier emerge from his foxhole, rifle and bayonet in hand.

GENERAL BRUCE C. CLARKE

LETTERS *(continued from page 3)*

At present I find *Infantry* invaluable source material for evaluation and discussion of trends.

R. ERNEST DUPUY
Col, USA, Ret
McLean, Va.

For Memories and Comradeship

Sir:

Infantry magazine keeps me current with U. S. Infantry tactics, techniques and new developments. . . .

It is also a means of keeping alive memories of my instruction at the U. S. Army Infantry School and it promotes a feeling of comradeship with Infantrymen all over the Free Western World.

KURT F. HOPPE, Capt
Grenadier-Battalion 41
German Army
Hoexter/Weser, Germany

Lifesaver

Sir:

I would like to say that *Infantry* magazine has been a lifesaver since I was assigned to the Engineers stationed at Fort Knox. It has kept me abreast of the Infantry subjects and will do so until I am placed in an Infantry unit again.

DON T. KERSTING, Jr.
Lt, Infantry
Company C, 54th Engineer Bn.
Fort Knox, Ky.

Battle Group Commanders Say . . .

Sir:

I require each company to subscribe to *Infantry* out of its unit funds and strongly recommend that all officers and noncommissioned officers subscribe personally. . . .

G. A. SHARPE
Col, Infantry
1st BG, 34th Infantry
APO 112, New York

Sir:

Every company in this battle group subscribes to *Infantry* and I keep a copy in my office and also one in the S3 office. It is one of the great est aids that any officer with troops can have available. . . .

There ought to be a closer liaison between battle group commanders in the field and the people who write the doctrine at the Infantry School. The Infantry School should make every effort to obtain officers who are fresh from troop duty for the staff and faculty.

ROLAND M. GLESZER
Col, Infantry
2d BG, 21st Infantry
APO 25, San Francisco

Sir:

I have long subscribed to *Infantry*. . . . It is the most informative publication available to the professional Infantryman. . . . We award a one-year subscription to *Infantry* to our battle group "Warrior of the Month."

OTTO R. KOCH, Jr.
Col, Infantry
2d BG, 5th Infantry
Fort Carson, Colo.

Sir:

Infantry magazine is the best magazine of its kind available . . . it should be read by all Infantrymen.

At my present level, there are no doubts whatever of the important role of the Infantry soldier. There are many doubts, however, on present organization and materiel. If these ideas can be circulated there is no question that some of them will take root and we will have a better Army.

ROBERT L. ASHWORTH
Col, Infantry
1st Abn BG, 501st Infantry
Fort Campbell, Ky.

Sir:

. . . In our battle group, we have an officers' research and study program. This program was established to provide our officers with a comprehensive and objective training medium through which they can study and research selected subjects of current professional interest.

We are adding the writing of material for *Infantry* magazine to the objectives of this program.

POWELL A. FRASER
Col, Infantry
2d BG, 13th Infantry
Fort Carson, Colo.

Why Not the M84?

Sir:

Recent articles in *Infantry* entitled "Short Cut to Mobility" and "Mortar Mobility" have stressed the need for a tracked carrier for the 4.2 mortar.

I can find nothing but praise for the idea of adapting the 4.2 to the M56 carrier. However, I cannot help but wonder if the M84 mortar carriage, currently used by the Reconnaissance Squadron, armored rifle battalions and armored battalions of the ROCAD armored division, would not be an acceptable vehicle for the battle group.

Consider the advantages: the M84 is a vehicle in production at this time. It has side and overhead armor protection and of course is amphibious. The M84 is also indistinguishable except at close range from its sister, the M59 APC, thus rendering the location of weapons by visual or image means difficult. And of course usable fire power is furnished by the OVM caliber .50 machinegun.

On the debit side, we of course must pay the penalty of increased ground pressure for the protection afforded by armor. However, at 7.1 pounds per square inch, the vehicle is still "light on its feet." The M84 is not air transportable as is the M56 but a mortar carrier version of the T113 could be carried by present cargo aircraft.

Considering all factors, perhaps a longer look should be taken at the M84 as today's most practical and available mortar carrier, with the thought of a mortar carrier version of the T113 for tomorrow.

ROBERT W. SMITHSON
Maj GS (Artillery)
2d Armored Division
Fort Hood, Tex.

WHAT'S NEW FOR INFANTRYMEN

Changes • New Developments • Items of Specific or General Interest to Infantrymen

Contract Awarded for M14 Rifle

Award of a contract for commercial production of the Army's new lightweight M14 rifle has been announced by the Department of the Army. This contract, which totals $4,116,250, is the first of two, each of which will be awarded for the production of 35,000 rifles. The second contract is expected to be announced shortly. Initial delivery of rifles is scheduled to be made within 12 months after the signing of the contract. Delivery of rifles from the pilot line at the U. S. Army Ordnance's Springfield Armory will start in July of this year.

The M14, designed and production-engineered at the Springfield Armory, is capable of both automatic and semi-automatic firing. It is chambered to fire the standard NATO 7.62mm cartridge, and replaces four hand weapons currently in use by the Army—the M1 rifle, the .30-caliber M2 carbine, the .30-caliber Browning automatic rifle and the .45-caliber M3A1 submachinegun.

The Lobber

A new missile has been developed by Convair division of General Dynamics Corporation for use as a supersonic ballistic cargo missile. Called the "Lobber," it could be useful in place of regular airlift to deliver food and supplies to embattled or isolated troops in combat.

Fired from a hand-carried launcher, the Lobber would also have other uses. It is being developed for the additional capabilities of transporting small radio transmitters, putting cables across rivers for engineers, building bridges and stringing communication wire. Another application of the equipment may include use as a weapon to deliver napalm or high explosives.

In initial testing of the solid-propellant missile at Camp Irwin, a nine-foot Lobber reportedly delivered a 50-pound payload intact a distance of six miles. Payloads up to 200 pounds can be delivered.

Mobile Communication Center

The U. S. Army Signal Corps has developed a highly mobile, air transportable communication center. The system can be set down almost anywhere by helicopters and be flown out immediately for relocation elsewhere. It can also be moved rapidly by conventional Army trucks.

The new center provides the vital nucleus for a communication network of radio, telephone, telegraph and teletypewriter combat links. Composed of separate aluminum shelters, the number of which varies according to the mission, the center can be tailored to serve either frontline units or large headquarters. Each shelter has an integral power source or can be connected to a central system.

New 81mm Mortar

A new 81mm mortar, the T227, has been designed to replace the present M29. The T227 weighs 75 pounds, 18 pounds less than the 93-pound M29. Each component of the T227 mortar—the tube, the baseplate and the mount—weighs 25 pounds, making three even loads for the mortar squad. In outward appearance, the T227 is very similar to the M29, the only noticeable difference being in the construction of the mount.

The new 81mm mortar.

XM443E1 cross-country vehicle.

Cross-Country Truck

Department of the Army has contracted for further development work on the XM443E1, a new four-wheel drive, cross-country vehicle. Service-test models of this vehicle should be available later this year. Weighing three quarters of a ton, the truck is designed to carry a ¾-ton payload. It is being developed for possible use as a personnel or cargo carrier, a command and reconnaissance vehicle, or a weapons platform.

Wind Chill Chart

A wind-chill chart has been developed by medical researchers in the Office of the Surgeon General. The chart is designed to provide information on the effect of cold and wind on military personnel.

The purpose of the chart is to reduce the incidence of cold injury among troops during the winter months. Everyone knows that it feels colder when the wind blows but most people don't realize how much colder. The chart gives a standard wind-chill rating when compared to temperature and wind velocity. For example, the chart shows that if the temperature is expected to be 35 degrees Fahrenheit and the expected wind velocity is 20 miles per hour, the effect on exposed flesh will be the same as -38 degrees with no wind.

A table of equivalent temperatures on exposed flesh with varying wind velocities up to 45 miles per hour has been published in DA Circular 40–33, dated 3 November 1958.

New Pathfinder Beacon

A lightweight, air-droppable pathfinder beacon light has been developed to mark assembly points for airborne troops.

The beacon light has an infrared range of two miles when viewed from the ground and a visible light range of five miles when viewed from an altitude of 1000 feet.

The light is mounted on a telescoping mast which can be extended to 23 feet. Six signal lenses are provided in white, red, amber, green, blue and infrared. A mechanism can be set so the beacon flashes a preplanned sequence of four Morse Code characters, either manually or automatically. It can also be set to provide a continuous beam.

The beacon mast telescopes to 30 inches for placement in a carrying case. The case also contains a 12-volt rechargeable nickel-cadmium battery and the coding sequence mechanism. Total weight of the case and components is 20 pounds.

The pathfinder can be erected and operated by one man. Developed by the U. S. Army Engineer Research and Development Laboratories, Fort Belvoir, Virginia, it is now undergoing user tests at Fort Bragg, North Carolina.

Battle Group Radar Set

A lightweight, medium-range radar set, the AN/TPS–21, has been authorized for issue to the Infantry battle group. Designed to search out and pinpoint moving targets on the battlefield, this new radar has a maximum range of over 18,000 meters. Capable of automatic search or "sector scan," the equipment can also be operated manually to track a detected target. Accurate range and azimuth readings can be obtained with the set.

Weighing 431 pounds and operated by a team of three men, this radar equipment can be broken down for packboard carry if necessary. However, it normally

AN/TPS-21 radar set.

will be transported in the ¼-ton truck and trailer assigned to the team.

The on-target indication is a characteristic audio tone in the operator's earphones. Since different targets produce different audio tones, a well-trained operator can distinguish a group of moving men from a moving tank or other vehicle.

The AN/TPS–21 operates on a line-of-sight principle. Consequently, large hill masses, densely wooded areas and sizeable buildings will obstruct surveillance with this equipment.

SD1 Surveillance Drone

The new aerial surveillance platoon, authorized for the Infantry division aviation company by the revised ROCID TOE, will be equipped with the SD1 surveillance drone system.

A radio-controlled aircraft which weighs 420 pounds fully equipped, the SD1 is 15 feet long and has a wingspan of 12 feet. It is zero-launched from a track similar to that used by some rockets, and, although propeller-driven, is assisted at launching by two JATO bottles. Each JATO bottle provides 5200 pounds of thrust to send the small craft roaring into the air at speeds better than 220 miles per hour.

SD1 Surveillance Drone

Once launched, the drone is tracked by radar and controlled by radio. It can attain an altitude of 15,000 feet and is capable of penetrating enemy territory for approximately 50 miles and then returning to its home base.

The SD1 can be equipped with television, motion-picture and still cameras. The cameras are rigged to operate on radio command from the controller. Photography missions can be flown at night using integral infrared equipment. Other specialized sensory equipment may be carried to fulfill particular mission requirements.

SD3 "Snooper"

The drone uses a 44-foot extended-skirt parachute for landing. The recovery is made by bringing the craft over its base and cutting its engine by radio impulse. A second radio command releases the parachute which eases the drone to the ground.

An automatic parachute device floats the drone back to earth. Special inflatable rubber mats in the drone itself cushion the fall.

The "Snooper"

A remote-controlled drone designated the SD3 has been built for the U. S. Army Signal Corps by the Republic Aviation Corporation. It is designed to observe enemy battlefield activities and installations.

The "snooper" weighs less than 1000 pounds, is only 15 feet long and has a wingspan of 11 feet. The drone is packed with electronic and other more advanced sensory devices for guidance control and observation. It has interchangeable nose units which permit rapid switching from one surveillance technique to a different type, depending upon mission requirements.

The drone is powered by a 140-horsepower Continental engine. It is launched from a mobile trailer by two rocket motors. Once in the air the reciprocating engine takes over.

The assembled "Snake".

Improved Minefield "Snake"

An improved version of the World War II mine-clearing "Snake" has been developed by the U. S. Army Engineer Research and Development Laboratories and in undergoing tests by troops in the field.

The new model, which consists of a series of prefabricated sections, can be assembled in less time than its predecessor. Sections of the Snake are transported to an assembly point by truck. After assembly, the unit is towed by tank to a minefield. To clear the field, the Snake is pushed over the mined area and detonated.

Improved mine-clearing performance with less explosive is achieved by the new device through the utilization of specially designed charges in place of the conventional charges formerly used. Detonation of the explosives-laden sections is accomplished by firing a machine-gun from the tank into a bullet-sensitive fuse.

The Snake, made of extruded aluminum, is over 400 feet long when assembled.

New Language School

To maintain and improve the skills of Army linguists, a new language training center has been opened at Fort Hood. The school is one of three new facilities planned by the Army. The others will be located at Fort Bragg and Fort Meade.

In addition to an "electronic language laboratory" accommodating 48 students, the facilities at Fort Hood include a tape library, a reference library with books in 127 languages, a film and record room, classrooms, reading rooms and a maintenance shop.

The electronic equipment in the language laboratory makes it possible to conduct training in several languages at one time. Dual-channel tape recorders and a master control panel enable an instructor to talk to any one of his students without being overheard by the others.

ROTC Flight Training

The Army's Reserve Officer Flight Training Program has been extended to include 70 colleges and universities and this year has a total enrollment of 625 senior cadets.

Aims of the program are to motivate college students to seek a career in Army Aviation, to screen applicants for Army Aviation training, to act as a career incentive in the Regular Army and to create a reserve pool of qualified aviators.

The program was initiated in 1956 at 25 colleges and has already graduated a total of 656 flight-trained cadets.

Fallout Survey Unit

Compact radiological survey teams designed to plot and predict fallout in combat zones have been organized by the Army.

The five-man units—one officer and four enlisted men—will be known as Radiological Control Centers, or RADCs. The units will be established at field army, corps and division level to evaluate and report radiological data gathered by aerial and ground monitors.

Members of RADC teams will be highly trained, since their work demands speed, accuracy and skill. It is expected that RADC teams may be required to handle several hundred readings an hour.

A prototype RADC was first organized during tests at Desert Rock in 1957.

CP Trailer

A CP-type trailer, the XM158, is being tested by the United States Army Infantry School and the United States Army Infantry Board.

The tests will determine the suitability of the new two-wheeled 1½-ton trailer for use as a field office for the staff sections of the battle group or higher headquarters. Adaptability of the vehicle for other uses—as a communication van trailer or a mobile aid station, for instance—will also be investigated.

The trailer is equipped with heater and ventilator, and has both 24-volt and 110-volt electrical systems. With a highway payload of 3000 pounds, it requires a 2½-ton truck as a prime mover.

Floor space of the test vehicle is 99.2 square feet. Over-all height is 118 inches from ground level. Fully equipped, the trailer has a curb weight of 6000 pounds. Its fording depth capability is 60 inches. Leg-type jacks, located at each corner of the trailer, provide stability for the vehicle when it is parked.

Emergency Medical Packet

An emergency medical packet has been devised by the U. S. Army Medical Service. This new medical packet, the Phase I Emergency Medical Treatment Unit, is designed to meet conditions immediately following a military disaster or other mass casualty situation in which the number of persons injured is out of proportion to the medical resources available. The problems of mass casualty care are not confined to nuclear warfare, but can result from fires, floods, hurricanes and other civil disasters. It has been assumed that during these periods no direct professional medical help may be expected, and casualties will either treat themselves or be cared for by other non-medical personnel.

Containing 23 items, the emergency packet will provide medical material for treatment of approximately 100 casualties for about 72 hours.

This packet is, however, designed for much more than first aid. The items included have been carefully selected, and training in their use will be carried out by all three services.

Representatives of the Assistant Secretary of Defense (Health and Medical) and a professional supply representative from each of the military departments selected the items to be included. The emergency care packet was developed at the tri-service Medical Equipment Development Laboratory, Fort Totten, New York, and at the Army Medical Supply Depot, Louisville, Kentucky.

Packaged as one unit, the emergency care packet has nine component cartons: two master packs containing a synthetic plasma expander, surgical instruments and other items; one fracture pack; two burn packs; and four wound packs.

Thermograph — Night Vision Aid

A new photographic device, which uses the "heat" or infrared radiation emitted by the subject, has been developed as a night vision aid.

Called the Thermograph, this infrared device does not require sunlight or artificial light to produce an image. It depends solely on radiation from the person or object at which it is focused. Since this radiation is present day and night, the thermograph can operate in total darkness.

Infrared radiation emitted by the photo subject enters the optical system of the device and forms a thermal image on photographic film in a polaroid camera for quick development.

The Thermograph was developed as a research instrument to determine the basic characteristics for a military thermal imaging device which would provide a means for night reconnaissance, terrain mapping, target location and detection of camouflage.

Normally, the Thermograph would be operated by two men. In an emergency it could be operated by one man.

MANUALS

The following manuals have been published by Department of the Army and are available to instructors through normal supply channels:

FM 21–77, Evasion and Escape.

FM 21–77 (A), Evasion and Escape (C).

FM 22–5, Drill and Ceremonies (revision).

FM 22–100, Military Leadership (revision).

FM 23–5, U. S. Rifle, Caliber .30, M1.

FM 23–90, 81mm Mortar, M29.

ROTCM 145–4–2, The Junior ROTC Manual, Vol II.

ROTCM 145–100, Service Orientation (revision).

The following manuals have been forwarded by the United States Continental Army Command to The Adjutant General for printing and publication:

FM 7–10, Rifle Company, Infantry and Airborne Division Battle Groups (new).

FM 21–75, Combat Training of Individual Soldier and Patrolling (change).

The following manuals and training literature are being written or rewritten. Publication cannot be expected until later this year.

FM 7–21, Headquarters and Headquarters Company, Infantry Division Battle Group (revision).

FM 7–24, Communication in Infantry and Airborne Divisions (revision).

FM 7–40, Infantry and Airborne Division Battle Groups (revision to include ROCID TOE changes).

FM 7–( ), Combat Support Company, Infantry Division Battle Group (new).

FM 20–( ), Ground Flame Warfare (new).

FM 23–( ), U. S. Rifles, 7.62mm, M14 and M15 (new).

FM 31–50, Combat in Fortified Areas and Towns (revision).

FM 57–21, Headquarters and Headquarters Company, Airborne Division Battle Group (new).

TC 20–( ), Airmobile Operations (new).

TC ( )–( ), The Antitank Guided Missile Platoon, Infantry and Armor Units (new).

TRAINING FILMS

The following training films have been approved for release to requesting units:

GF 11–40, The AN/TCC–7 System—Part I—Introduction to the System, 15 minutes.

GF 11–41, Introduction to Telephone Terminal AN/TCC–3 and Telephone Repeater AN/TCC–5, 15 minutes.

GF 55–43, Highway Regulation, Use of Circulation Map, 18 minutes.

MF 5–9019, Engineer Air Reconnaissance, 29 minutes.

MF 11–8931, United States Army Signal Equipment Support Agency, 23 minutes.

MF 30–8865, Free Europe—Part I—The Lands and the People, 31 minutes.

MF 30–8866, Free Europe—Part II—The Lands and the People, 30 minutes.

MF 46–8907, Helicopter—Emergency Procedures—Part I—Blade Stalls, 12 minutes.

MF 46–8909, Helicopter—Emergency Procedures—Part III—Emergency Procedures in the H19, 8 minutes.

TF 3–2651, Effects of Mustard Gas on Individuals, 4 minutes.

TF 3–2652, Individual Protection Procedures Against Mustard Gas, 8 minutes.

TF 3–2653, Protective Mask Fitting, 5 minutes.

TF 3–2654, Protective Mask Inspection, 8 minutes.

TF 3–2655, Automatic Masking Procedure, 6 minutes.

TF 3–2656, Individual Combat Protective Equipment, 5 minutes.

TF 3–2657, Individual Protective Equipment, 8 minutes.

TF 3–2659, Portable Flame Thrower M2A1–7—Pressure Charging, 9 minutes.

TF 3–2660, Portable Flame Thrower M2A1–7—Filling by Pressure Using Fuel Filling Kit M10A1, 9 minutes.

TF 3–2662, Surveillance of Chemical Corps Material—Surveillance, 6 minutes.

TF 3–2663, Handling and Storage of Equipment for Chemical Agents, 8 minutes.

TF 5–2598, Operator's Adjustment D7 Tractor—Part VI—Caterpillar Cable Control, 8 minutes.

TF 6–2505, The Corporal Missile—Defueling Process, 25 minutes.

TF 8–2676, Management of Mass Casualties—Part VIII—Management of Mechanical Injuries, 20 minutes.

TF 8–2754, Nursing Care with a Stryker Frame, 15 minutes.

TF 9-2599, Automotive Electricity for Military Vehicles—Part V—Principles of Operation of the Generator Regulator, 16 minutes.

TF 9–2686, Bleeding the Brake System, M135 Truck, 6 minutes.

TF 9–2687, Steering Brake Band Adjustment, Full Track Armored Infantry Vehicle M59, 4 minutes.

TF 9–2688, Transmission Band Adjustment of the CD 850, 90mm Gun Tank M48, 4 minutes.

TF 9–2689, Transmission Brake Adjustment, 90mm Gun Tank, M48A2, 4 minutes.

TF 9–2691, Steering Gear Adjustment, M135 Truck, 7 minutes.

TF 9–2692, Manual Shift Control and Throttle Linkage Adjustment, 2½ Ton, M211 Truck, 10 minutes.

TF 9–2699, Automotive Trouble Shooting—Part VIII—Carbon Pile Voltage Regulation, 30 minutes.

TF 10–2698, Packing the T10 Troop Back Parachute, 40 minutes.

TF 10–2728, Petroleum Testing Kit, 15 minutes.

TF 10–2729, Pipeline Pump Station Operations, 12 minutes.

TF 10–2730, Collapsible Petroleum Containers (10,000 gallons), 17 minutes.

TF 10–2731, Gauging and Sampling Petroleum Products, 18 minutes.

TF 11–2696, The AN/TCC–7 System—Part II—Initial Adjustments of Carrier Telephone Terminal, 23 minutes.

TF 11–2697, The AN/TCC–7 System—Part III—Lineup Procedures of Carrier Telephone Terminals, 18 minutes.

TF 11–2714, Pole Line Construction—Part I—Laying out a Pole Line, 19 minutes.

TF 11–2715, Pole Line Construction—Part II—Preparing to Erect the Pole, 19 minutes.

TF 11–2716, Pole Line Construction—Part III—Erecting Poles and Attaching Crossarms, 26 minutes.

TF 11–2717, Pole Line Construction—Part V—Installation of Anchors, 12 minutes.

TF 11–2718, Pole Line Construction—Part VI—Installation of Guys, 20 minutes.

TF 16–2737, Ambition, 7 minutes.

TF 16–2738, Are You Really a Man, 7 minutes.

TF 16–2739, Perserverance, 6 minutes.

TF 17–2587, Armor Team Security, 24 minutes.

TF 20–2596, Soviet and Satellite Employment of Mines, 20 minutes.

TF 20–2597, Soviet and Satellite Employment of Booby Traps, 18 minutes.

TF 30–2562, Resist, 29 minutes.

TF 41–2589, Military Government in an Enemy City—Part I—Initial Entry, 16 minutes.

TF 46–2670, Helicopter Aerodynamics—Rotor Blade Angles, 12 minutes.

TF 55–2721, LCM–8 Refueling at Sea, 17 minutes.

TF 55–2722, DUKW Operations—Part II—Loading and Unloading at Sea from an LST, 13 minutes.

WA–8, Communist Propaganda, 41 minutes.

The following instructional material is suitable for resident as well as non-resident instruction and may be obtained from the Book Department, United States Army Infantry School, Fort Benning, Ga., at the prices shown:

The Battle Group S1, 6401–USAR, two hours. A conference covering the principles of personnel management, the personnel management and administrative organization within the Infantry battle group and division, responsibilities of the S1 and his relationship to the division and battle group staffs. A practical exercise is presented on S1 responsibilities. 50¢.

Command Post Organization and Displacement, 6431–USAR, one hour. A conference covering division of battle group headquarters to facilitate control, composition of command post, coordination by S1 with unit and special staff officers pertaining to command post displacement, selection of exact site, interior arrangement of command post and displacement of command post by echelon. A practical exercise is presented on selection of exact site and interior arrangement of a command post. 45¢.

Personnel Procedures, 6436–USAR, two hours. A conference covering command and staff responsibility for classification and assignment of enlisted men, assignment of officers in the battle group and promotion and reduction of enlisted men. 45¢.

Military Management, 6467–USAR, two hours. A conference which familiarizes the student with command and staff responsibilities for the application of management principles and techniques, functions of the comptroller, the Army Program System and the Army Management Improvement Program. A practical exercise is presented on military management problems. 25¢.

Concept of Intelligence, Weather and Terrain, 6607–USAR, three hours. A conference covering the principles of military intelligence, the value of intelligence in the exercise of command and the concept of combat intelligence. A conference and map-and-terrain exercise covers weather and terrain, the military aspects of terrain and terrain analysis. 40¢.

Collection: Reconnaissance Duties of the S2, 6616–USAR, three hours. A conference and practical exercise covering S2 reconnaissance responsibilities including necessary coordination with other staff officers, operation of observation posts, employment of organic reconnaissance elements, patrol planning and the briefing and debriefing of patrols. $1.00.

Processing Information, 6627–USAR, four hours. An integrated conference and map exercise in the recording and analysis of information concerning weather, terrain and the enemy, and how resultant intelligence forms the continuous intelligence estimate. It includes techniques used in recording information, posting an enemy situation map and keeping an S2 worksheet. Analysis includes effects of weather and terrain. Instruction includes preparation of an intelligence estimate. 95¢.

The S2 at Work: Use of Intelligence, 6629–USAR, eight hours. An integrated conference and map exercise in the production and use of combat intelligence during a battle group defensive operation followed by an attack. Requirements combine collection and processing information and the use of resultant intelligence. Students perform the normal combat duties of a battle group defensive S2, which includes maintaining a situation map, worksheet, collection plan and the preparation of an intelligence estimate. Instruction includes use of intelligence in orders, records and reports. $1.20.

Counterintelligence, 6646–USAR, one hour. A conference covering counterintelligence including the fundamentals of counterintelligence and familiarization with AR 380–5, "Safeguarding Military Information."

Air-Ground Operations, 6954–USAR, two hours. An integrated conference and practical exercise covering Army requirements for air support, the air-ground sys-

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tem, target selection and marking, the ground liaison officer and air operation planning. 45¢.

Tactical Psychological Warfare, 6956–USAR, one hour. A conference discussing the role of psychological warfare as a supporting weapon within the Infantry unit, command and staff responsibility in employment of psychological warfare, the media available to Infantry units and defense against enemy propaganda. 10¢.

Training Programs and Schedules, 7187–USAR, six hours. A conference and practical exercise covering training programs, master training schedules, principles of schedules and techniques of preparing a company weekly training schedule. $1.50.

Preparation and Conduct of a Field Exercise, Rifle Platoon in the Attack, 7251B–USAR, six hours. The preparation of field exercises for small units, planning and preparing a field exercise, rifle platoon in the attack. 70¢.

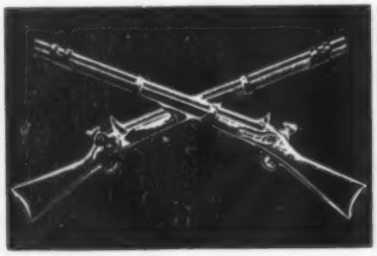
Organization of the Infantry Division, 7305–USAR, two hours. A conference on the principles of organization; detailed instruction relative to the organization, equipment, capabilities and functions of the elements of the Infantry division battle group; general information concerning the organization, equipment and functions of the elements of the Infantry division. Explanation of differences between Infantry, armored Infantry and Airborne units. 35¢.

Logistical Organization, Operations and Systems, 7563–USAR, eight hours. An integrated conference and practical exercise covering the duties and responsibilities of the battle group S4; the organization, functions, employment, capabilities and limitations of the Infantry division battle group supply and maintenance platoon; definitions, characteristics, basis of issue and requisitioning procedure for each of the classes of supply; supply systems of the battle group to include methods of distribution, personnel and transport utilization, characteristics of supply point locations and employment of unit trains. 60¢.

Area Damage Control, 7574–USAR, one hour. A conference covering the organization and measures taken to reestablish administrative support when a condition of mass destruction exists. These measures include fire prevention and protection, bomb disposal, protection against chemical agents, biological warfare and radiological hazards, first aid, ambulance service, control of civilians and traffic regulation and control. 60¢.

Rail Movements, 7647–USAR, four hours. An integrated conference and practical exercise covering the principles and procedures used in moving the Infantry division battle group by rail, to include decision as to order of movement, computation of rail car requirements, loading and lashing of equipment, and duties of key personnel required for the rail movement and train staffs. 40¢.

Logistical Support of Armored Infantry Battalions, 7669–USAR, three hours. An integrated conference and practical exercise which introduces logistical organization within armored units. Emphasis is placed on the duties and responsibilities of commanders, S4s and other logistical personnel in providing necessary logistical support. It covers the systems of supply employed in combat to include battalion and company trains, requisitioning and distributing of all classes of supplies, the evacuation of salvage material and the dead in combat, and the organization, function and employment of medical detachments of armored units. 50¢.



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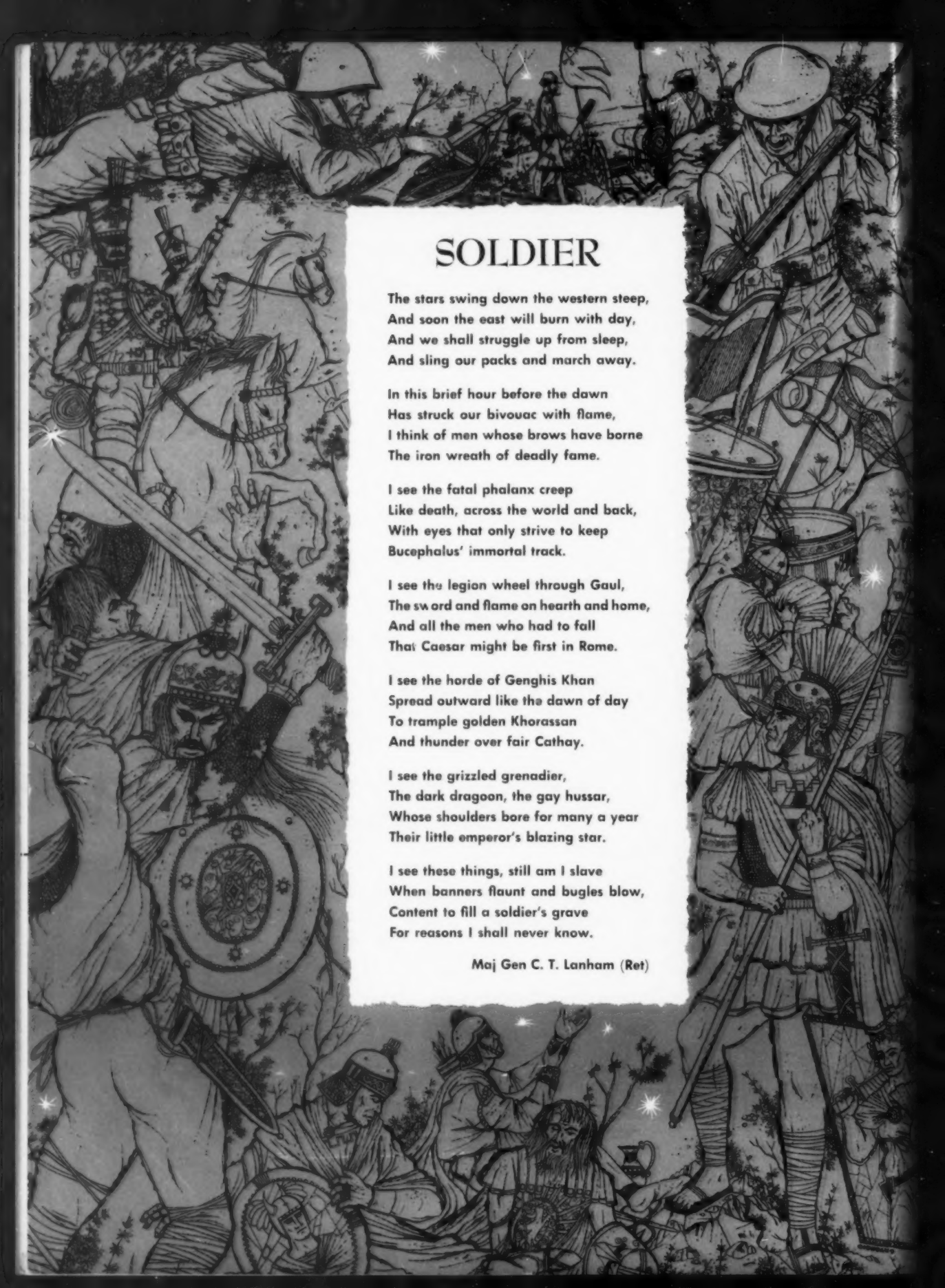

SOLDIER

The stars swing down the western steep,
And soon the east will burn with day,
And we shall struggle up from sleep,
And sling our packs and march away.

In this brief hour before the dawn
Has struck our bivouac with flame,
I think of men whose brows have borne
The iron wreath of deadly fame.

I see the fatal phalanx creep
Like death, across the world and back,
With eyes that only strive to keep
Bucephalus' immortal track.

I see the legion wheel through Gaul,
The sword and flame on hearth and home,
And all the men who had to fall
That Caesar might be first in Rome.

I see the horde of Genghis Khan
Spread outward like the dawn of day
To trample golden Khorassan
And thunder over fair Cathay.

I see the grizzled grenadier,
The dark dragoon, the gay hussar,
Whose shoulders bore for many a year
Their little emperor's blazing star.

I see these things, still am I slave
When banners flaunt and bugles blow,
Content to fill a soldier's grave
For reasons I shall never know.

Maj Gen C. T. Lanham (Ret)